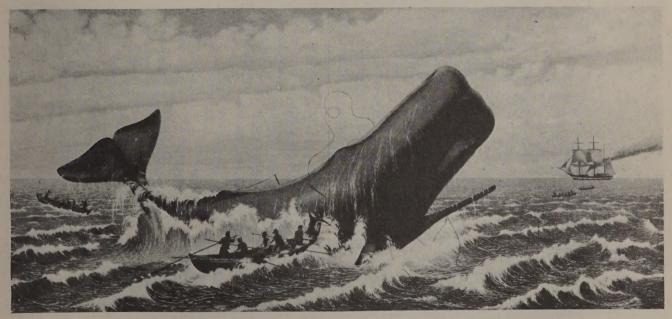
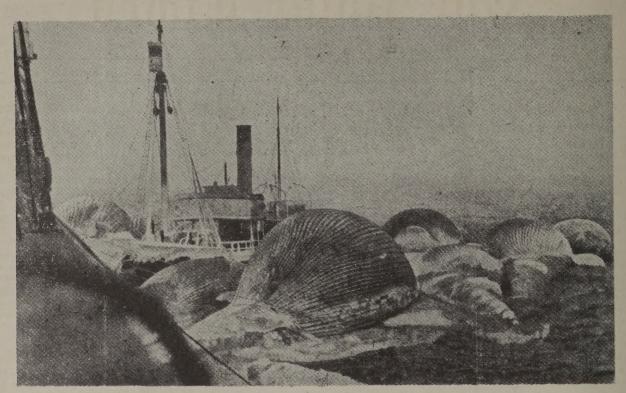
THE POLAR TIMES



IN THE DAYS OF THE WHALERS

Large mural by Staff Artist Arthur G. Rueckert in the new Hall of Whales. It depicts the dramatic and hazardous moment when the men in the whaleboat come alongside the harpooned giant of the sea to drive the hand lance into its heart.



Above is shown a scene on the whaling grounds in Antarctica, with a "catch" and a chaser alongside the mother ship.



The Japanese whaling factory tanker, Nisshin Maru.

The huge opening in the stern was used to haul in whales.

The Polar Times

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IN INLAND CHICAGO-THE WHALES OF ALL THE WORLD'S SEAS AND OCEANS

BY KARL P. SCHMIDT CHIEF CURATOR, DEPARTMENT OF ZOOLOGY CHICAGO NATURAL HISTORY MUSEUM

Whales have been of such great economic importance to man, and their pursuit is so spectacular and in former times was such a dangerous trade, that the very word "whale" is almost as familiar as "dog" and "cat." The first group of visitors to the new Hall of Whales (Hall N-1) in the Museum was a class in American literature, which had been studying the novelist Herman Melville whose "Moby Dick" is probably the most famous of all whales. The newly opened hall, preparation of which has been under way for the last five years, is adjacent to one containing habitat groups of other marine mammals (Hall N), and this in turn leads into the Halls of Fishes (O) and of Marine Invertebrates (M).

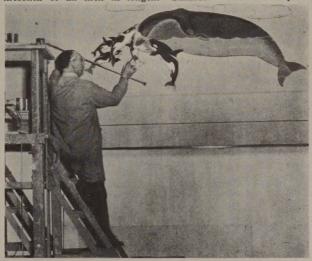
The vast size of whales, and their considerable variety, present a major problem for museum exhibition, and in order to present a conspectus of the whales of the world in the space available, it has been necessary to scale the larger whale models to one-tenth natural size. The smaller types of toothed whales, known as porpoises or dolphins, are shown in life-size models. All have been prepared in carefully painted plaster casts from models in clay.

The wall space above the cases has been used for simple murals showing interesting features about whales, such as a mother whale nursing its young, killer whales attacking the bowhead whale, and porpoises playing about the bow of a ship. A large mural at the end of the hall presents the most dramatic moment of the pursuit of whales by sailing ship and whaleboat, when the whaleboat is held against the whale's very side until the hand lance is driven to its heart. Further accessories in the hall include a case of whaling tools, and the novel "scrimshaws" and "jagging wheels" carved from whales' teeth by the sailors on their long voyages.

Represented in the hall are most of the distinct types of whales in the seas (approximately one-half of the species and subspecies of whales now known).

Many who know that whales are the largest animals living in the world today are unaware that they are the largest animals *ever* known, either of living or extinct creatures—far larger even than the greatest of the dinosaurs, reptilian giants of the prehistoric world.

To give an easy measure of comparison in the hall, figures of men in whaling ship regalia, scaled to represent six-footers in ratio to the one-tenth size whale models, are displayed with them. Whales fall into two sharply defined groups, toothed and whaleboned whales. The toothed species feed on fishes, squids, or even larger animals. Whalebone whales have instead of teeth a whalebone sieve to strain the smaller creatures from the surface waters of the sea. Their principal food, known to whalers as "krill," is composed of various crustaceans, some no more than one-fifteenth of an inch in length. Smaller



MUSEUM ARTIST AT WORK

Arthur G. Rueckert, Staff Artist of the Museum, painting one of the mural sketches decorating the now completed Hall of Whales. The sketch illustrates how small killer whales attack a giant bowhead whale.

schooling fishes such as anchovies, sardines, and herring are also engulfed and strained out of the water by these consumers of seafood.

The staple food of the sperm whale, largest of the toothed types, appears to be gigantic squids rarely seen by man, which are pursued in the twilight zone of the sea at a depth of about 300 feet.

Among the larger species of whales represented in the one-tenth size museum models are: The blackfish or pilot whale, which swims in great schools of as many as a thousand individuals that sometimes become stranded in shallow water: the killer whale, "wolf of the sea," which attacks its fellow large whales as well as such smaller creatures as porpoises, seals, and penguins; the sperm whale, largest of toothed whales; the pigmy sperm whale; the right whale; Cuvier's beaked whale; the Arctic white whale; the humpback whale, most stout-bodied of all with a flattened snout (a sort of Hermann Goering of the whales), which once was of great importance to the whaling industry; the California gray whale; the slender finback or rorqual; the

sei whale; the little piked whale; the pigmy right whale; the blue whale, largest animal ever known to have lived either among extant or extinct species on either land or sea; the bowhead whale; the Atlantic bottlenose, and the narwhal which is armed with a long straight spearlike tusk.

The curious courtship antics of the humpback whales are well known to whalers. An amorous pair lie alongside of each other

> and deal each other alternate love taps with their sixteen-foot flippers. These resounding taps make a thunderous sound that can be heard for miles over the sea.

The museum curator serves so large a function as a question answerer to the general public, as well as to text-book writers, editors of encyclopedias and magazines, and reporters, that some of the more familar questions and answers have been drawn up below.

Q. Are whales fishes?A. No.

This is one of the most familar of questions asked of museum curators, and the reply,

that whales are *not* fishes, is sometimes met with skepticism. The question, in fact, involves the meaning of words and the divergence between popular names and scientific classifications, for in Old English any creature of the sea was a fish. This meaning of the word "fish" persists in starfish, jellyfish, shellfish, etc., and these creatures are much less closely related to what the zoologist calls "true fishes" than are whales. Whales and the true fishes at least agree in having backbones as a fundamental characteristic.

Q. If not fishes, what are whales?

A. Mammals.

Mammals have warm blood, hair, and suckle their young with milk from the "mammae." Whales have warm blood, a few vestiges of the hair coat (sometimes only two hairs), and suckle their young. Whales are thus really more closely related to mice and men than to fishes or reptiles.

- Q. To what other mammals are whales most nearly related?
- A. We don't know.

The earliest known fossil whales have strong teeth, but they are already wholly aquatic mammals; our best guess is that they arose from the central stock of mammals that produced both the flesheaters and the hoofed mammals. There is so little connection between the whalebone whales (which have no teeth) and the toothed whales that it has been



This species represents the whalebone division of the whale tribe. It is also the largest of whales, and, in fact, the largest of all animals known on land or sea, either of living or extinct species.

pendent origin from land-dwelling ancestors.

Q. What is the largest whale?

A. The blue whale.

Often known also as the sulphur-bottom, this whale reaches a length of more than 100 feet and a weight of more than 150 tons.

suggested that these two types had an inde-

Q. What is the smallest known whale?

A. The Yangtze River porpoise.

This species reaches a length of only about five feet.

Q. What kind of whale was Moby Dick?

A. The legendary white whale was described as a gigantic sperm whale.

Presumably it had grown white with age.

Q. How do whales swim?

A. By sculling.

That is, by diagonal down strokes of the tail. Undulation, like the side-to-side swimming movement of a fish, does not seem to be employed.

Q. How do whales breathe?

A. Whales breathe air (like all mammals).

The "spouting" or "blowing" of whales is the exhaled air made visible by the condensation of water vapor when it meets the cool outer air and is released from the pressure of the whale's lungs. Water is not spouted out, as is often assumed.

Q. How large is a baby whale?

A. Depends on the kind of whale.

But the newly born young is astonishingly large in comparison with its mother. The young blue whale at birth measures 23 to 26 feet in length and weighs three to four tons.

Q. How fast do whales grow?

A. Very rapidly.

The young blue whale measures more than 50 feet when it is weaned, about seven months after birth. *

Q. How deep do whales dive?

A. At least a half-mile below the surface.

The record was made by a sperm whale that became entangled in a submarine cable off the coast of Colombia at a depth of more than 3,000 feet.

Q. How fast do whales swim?

A. Up to 18 knots.

The blue whale can swim at about 12 knots, with bursts of speed up to 14 knots; the smaller whales, like the dolphins may be much swifter. The common dolphin is said to pass ships at more than 18 knots.

Q. Why does man hunt whales?

A. Mainly for their oil.



THE SPERM WHALE

This species represents the toothed varieties of whales, and is the largest of them. It was one of the most sought after by whalers, and is the species to which the famous "Moby Dick" belonged.

The oil is tried out of the layer of fat (blubber) beneath the skin, with by-products of meat used as food and fertilizer from the rest of the carcass.

Q. What is "whalebone?"

A. Whalebone is not bone, but the horny plate material suspended from the roof of the mouth in the toothless whales.

It forms a strainer to let the water pass out and retain the small creatures of the sea for food.

Q. What is ambergris?

A. Ambergris is a curious substance apparently produced only in the intestines of sick whales.

It is sometimes found cast up on the beach. It was formerly valuable in perfume making, but has now been displaced by synthetic chemicals.

Q. Where are whales found?

A. In all parts of the oceans.

Populations of regions vary in more or less direct proportion to the abundance of the whales' food in any particular locality. Since the small floating animals of the sea are especially abundant in polar seas, the whalebone whales are most abundant in the Arctic and Antarctic. Q. Is whalebone still used in corsets?

A. Apparently not.

The use for this purpose in the great days of the corset almost led to the extinction of the bowhead whale, which produced the finest whalebone.

Q. Do whales have a tiny throat?

A. The opening of the throat is small in the whalebone whales but large in the toothed whales.

A large killer whale (30 feet or so in length) could easily have swallowed Jonah.

Q. What whale is supposed to have swallowed Jonah?

A. None.

The Bible reports Jonah to have been swallowed by a "great fish."

Q. What do whales eat?

A. The whalebone whales eat the smaller fishes and tiny crustaceans and mollusks of the sea. The toothed whales feed on large and small fishes and many eat squids.

The sperm whale apparently feeds mainly

on a giant squid that swims at a depth of several hundred feet.

Q. Are sea cows whales?

A. No.

They are an entirely distinct group of mammals that have taken to the sea. They are related to the elephants.

Q. Are porpoises and dolphins whales?

A. Y

Q. How long do whales live?

A. No one knows much about this.

A famous dolphin in New Zealand was a well-known harbor character for 32 years.

Q. What enemies do whales have?

A. The only important enemy of whales besides man is the killer whale.

The killer whale attacks even the largest whales by ganging up on them, and it regularly feeds on the smaller porpoises and dolphins.

Q. Do whales occur in rivers?

A. All the great tropical rivers have freshwater dolphins.

Often special kinds are found in specific river systems.

Q. What are "scrimshaws" and "jagging wheels?"

A. The product of whaling-ship sailors' leisure time.

Scrimshaws are decorated sperm whale teeth, engraved by the sailors on the long whaling voyages of the early part of the 19th century, intended for mantel shelf bric-a-brac. Jagging wheels are elaborately decorated pie-crimpers made from cut sections of sperm whale tooth. These objects are such favorites among collectors that it is difficult to obtain specimens.

Planning For Expedition To Antarctic

ADELAIDE, Australia, Oct. 23 (U.P.)—The Australian explorer, Sir Douglas Mawson, announced today that he was working on preliminary plans for another Antarctic expedition. He said he planned to use the ship Wyatt Earp, in which Lincoln Ellsworth carried out his Polar work.

He said today a great deal depended on any prompt move to

form an Australian whaling company to operate in an area which was already an Australian dependency.

"It is imperative that A us tralia should move promptly to establish her rights to operate a whaling company." Sir Douglas said. "Britain, Norway and South



Sir Douglas Mawson

Africa are moving southwards with their whaling ships."

Sir Douglas said South Africa, which controlled no territory in the Antarctic, held two permits. Australia, controlling 2,250,000 square miles of territory, had none.

He had been informed that Norwegians would be available to form the nucleus of whaling ship crews here. Gunners on whale "chaser" boats earned as much as £1000 to £1500 a season.

An Antarctic sub-committee of the National Research Council was looking into plans. Preliminary plans for the next expedition include use of the Wyatt Earp, formerly used by the American explorer, Lincoln Ellsworth, in Polar work. At present the Wyatt Earp, temporarily in South Australia, is being used as a training ship for sea scouts.

Sir Douglas, who has been Professor in Geology and Mineralogy at Adelaide University since 1920, said today that, at 63 years, he would not be looking to take on heavy work in the Polar region

His main object was the establishment of a permanent scientific base.

tific base.

"My interest is to try to establish a permanent connection between Antarctica and Australia," he said. "But although I am the chief mover and chairman of the committee concerned it is unlikely that at my age I will spend 12 months down there. I will be pleased to be able to make the trip south in the summer months in order to see the expedition well established, but there are many younger men who are well fitted for the arduous work of leading the actual exploration and investigating.

New Whale Ship Uses Radar

LONDON, Oct. 28 (A)—The Southern Venturer, a new 14,000-ton, radar-equipped whale factory, underwent a shakedown run in the North Sea today and will sail soon for the Antarctic. The Venturer will be a supply depot and processing plant for fleets of whalers. Her radar gear will be used to detect icebergs and as a navigational aid.

MEAT OF WHALES FOR WAR VICTIMS

British Ship to Antarctic Has Dehydration Plant and Oil Refinery

LONDON (BIS)—With 403 men on board, the Southern Venturer, first whaling factory ship to be built in Britain since 1939, recently left Newcastle for a 6,000-mile voyage to the Antarctic. Acting as the parent ship for a fleet of whale catchers, the Southern Venturer will spend four months in whaling grounds off South Georgia in search of food for the starving peoples of Europe.

The food products which she will supply are whale oil and dehydrated whale meat. With a capacity for handling about 1,200 whales during the season, the Southern Venturer expects to produce in its refinery 34,000 tons of whale oil which will be made into margarine and soap to ease the shortages in England and on the Continent.

The vessel also has equipment aboard for dehydrating whale meat. If dehydration proves successful, the problem of feeding Europe will be considerably eased, for the meat of a day's catch of twenty-four whales is equal to that provided by between 1,000 to 1,500 head of cattle. Whale meat in dehydrated form is said to have a protein content of 80 to 85 per cent and a high degree

of digestibility.
For the first time radar will aid a whaler in detecting icebergs, for the Southern Venturer is fitted with the latest radar equipment. In addition, the vessel has an experimental echo-sounder for telling the depth of the many still uncharted sections of the Antarctic

WHALERS AT CAPETOWN

Fleet Being Outfitted for Operations in Antarctic

CAPETOWN, South Africa (ONA)—A whaling fleet is getting ready here, to undertake in November an Antarctic expedition, and for the first time since the war began shipwrights are working overtime reconverting whalingships used during the hostilities as mine-sweepers and submarine chasers.

Capetown is likely again to become the main base for Antarctic whalers which, before the war, did an annual business of upward of \$500,000. By agreement among the Allies, the coming whaling season will be extended owing to the European famine of oils and

"Whaler scouts," who recently visited the Antarctic reported an abundance of whales.

Earthquake Shakes South Polar Region

LONDON, Dec. 29—A big earthquake, first recorded by Sydney, Australia, seismographs and recorded in Britain early today, centered within 1,000 miles of the South Pole, which is most unusual, according to J. J. Shaw, seismologist at West Bromwich.

"During my thirty-eight years' experience I do not remember an earthquake to have occurred before in this south polar region," he said. "It was undoubtedly an earthquake of great severity."

SYDNEY. Australia, Dec. 29 (Reuter)—A large earthquake, estimated to be centered 1,000 miles south of Australia, was recorded by Riverview Observatory at 3:54 A. M. today. The quake, which lasted four hours, was the second largest ever recorded south of Australia.

CANADIANS PLANNING BIG WHALING CONCERN

MELBOURNE (Canadian Press)
—Whaling may form a new link
between Canada and Australia if
proposals now afoot for a Canadian
whaling company become a reality.

whaling company become a reality. Present plans are that the company, with \$30,000,000 of Canadian and British capital, would take whales in the Antarctic, including waters near the Australian sector of Antarctica, which covers 2,500,000 square miles, or nearly half of the South Polar region.

While it is planned that the com-

While it is planned that the company's main base be in the Maritime Provinces of Canada, it might be found advisable to have a subsidiary base closer to the field of operations—in southern Australia or Tasmania.

Two whaling units are planned as a start for the enterprise. Each unit would require one mother ship, or floating factory of about 20,000 tons, to treat whales, and six small chasers to catch the huge sea mammals. Each of these units would cost \$7,500,000.

It is estimated that it would cost £300,000, or about \$1,350,000, a year to operate a unit that would produce approximately 20,000 tons of whale oil a year. Operating costs would work out to about \$52 a ton. Present prices on the London market are £50, or \$180, for a ton of whale oil, and £85, or \$306, for sperm oil.

Before the outbreak of war there were forty-four whaling units at work under flags of Norway, Britain, the United States, Japan, Germany and Panama. It is understood that only four of these units now are in existence. Two have recently returned to whaling. Six of the forty-four pre-war units belonged to Japan and seven to Germany.

J. D. Dean of Dean, Clarke & Co., London, has been visiting Canada to plan for the new whaling company, along with Capt. Otto Borchgrevinck, Norwegian whaling ex-

ELLSWORTH PLANS A NEW POLAR TRIP

Explorer Says He Will Return to Antarctic Next Year — Leaves Here on Gripsholm

Nearly eight years ago, when Lincoln Ellsworth was preparing for his fourth Antarctic exploration, he announced that the trip, would be his last to the South Pole area.

He will leave Jan. 10 on the Swedish liner Gripsholm, being operated as a repatriation ship for the State Department by the American Export Line. Mr. Ellsworth declared that he planned to return to the Antarctic next year.

The 65-year-old explorer, accompanied by his wife. Mrs. Mary Louise Ellsworth, leaves on the Gripsholm for Kenya Colony, East Africa, where he plans a geological exploration for from six months to a year in the volcanic areas of the Rift Valley. Mrs. Ellsworth will participate in the work as a photographer and writer.

as a photographer and writer.
Mr. Ellsworth, a lieutenant commander in the United States Naval
Reserve, had little to say about his
African trip, except that it involved geological research and was
sponsored by "private interests,"
which he did not wish to identify.

When referring to the projected Antarctic venture, however, he displayed enthusiasm, commenting: "That's my love—the polar re-

"That's my love—the polar re-

He said he planned to undertake the expedition with only a pilot accompanying him.

Byrd Back From War; Longs for Antarctic

SAN FRANCISCO, Oct. 23 (AP)—Rear Adm, Richard E. Byrd, just returned from Japan, said he would like to resume his antarctic explorations.

"Now that the war is over, the thing I'd like to do most is go back to the South Pole," he commented as he stepped from the Pan American Honolulu Clipper.

Admiral Byrd had been in the Pacific making a study of the effects of strategic precision bombing for Admiral King.

Whales

REPORTS radioed from Norwegian floating whaling factories now operating in Antarctica indicate that world food shortages may even be affecting that remote district. Veteran whalers who have followed the huge mammals for decades describe how the whales are much thinner this season, due evidently to a shortage of food. One wonders whether food supplies are actually short, or whether the whales have closen to take up voluntary rationing.

Detroit Air **Pioneer Dies**

DETROIT, Sept. 7—(A.P.)—Edward S. Evans, 66, prominent industrialist and a pioneer in aviation, died suddenly yesterday at his Grosse Point residence.

President of the Evans Products Company of Detroit, he was internationally known as a cargo-loading authority and as one of the first to experiment with gliders.

A friend of Sir Hubert Wilkins and interested in exploration he

and interested in exploration, he was manager in 1925 and 1926 of the Detroit Arctic Expeditions. Sir Hubert Wilkins named Cape Evans in the Antarctic for him and the University of Michigan Expedition to Greenland named Mount Edward S. Evans for him.

BYRON GAY, COMPOSER OF MANY HIT SONGS, 59

LOS ANGELES, Dec. 23-Byron Gay, composer of such song hits as "Avalon," "Horses" and "Song of the West," died here today in White Memorial Hospital after a

white Memorial Hospital after a brief illness. His age was 59.
Composer of more than 500 tunes, Mr. Gay entered the field with "The Little Old Ford Just Rambled Right Along," He composed the well-known "Song of the posed the well-known "Song of the West" while taking his first airplane ride, from Los Angeles to San Francisco

He also held the honor of leading the first cow onto Antarctic shores, when he accompanied Rear Admiral Richard E. Byrd on his second expedition to the frozen south. He and Admiral Byrd were classmates at the United States Naval Academy.

He leaves a widow, Mrs. Ethel Gay; a daughter, Mrs. John McGill of Los Angeles; two sisters, Mrs. Eidth A. Barman and Mrs. Bertha Dorsay, both of Los Angeles, and two brothers, Cassius M. Gay of San Luis Obispo and Ira S. Gay of Balboa.

Sir MacPherson Robertson

MELBOURNE, Aug. 20 (AP) .-MacPherson Robertson, eightyfive, confectionery manufacturer who financed the Mawson expedition to the Antarctic in 1929 and the England-Australia air race in 1934, died today.

Sir MacPherson was founder, proprietor and manager of Mac-Robertson's, manufacturers of confectionery, chocolate and cocoa, the largest organization of its kind in the Southern Hemisphere.

He was knighted by King George V in 1932 for financing, three years before, the Sir Douglas Mawson expedition to the Antarctic which planted the British flag on new lands there, one of which was named MacRobertson Land.

Sir MacPherson was born at Ballarat, Victoria, of Scottish parents. He went to live at Leith, Scotland, when he was eight years old but returned to Australia in 1875.

Sir MacPherson was made a Knight Commander of the Order of the British Empire in 1935 and was a Fellow of the Royal Geographical Society.

Range Examiner Dead At Station in Alaska

Lawrence J. Palmer, range examiner, died suddenly on June 20, 1945, at Anchorage, Alaska. Mr. Palmer, who was 52 at the time of his death, had been in Government research since 1915. From 1920 to 1937 he was engaged in investigations of reindeer grazing in Alaska and maintenance of the Reindeer Experimental Station at the University of Alaska, for the Biological Survey, Department of Agriculture. He also conducted studies on pasturage, feeding, and cross-breeding of reindeer, caribou, musk oxen, and mountain sheep.

After two years as Forest Ecologist in charge of range research in the Rocky Mountain region, under the Department of Agriculture, he returned to Alaska in October, 1937, as principal biologist for the Fish and Wildlife Service, Department of the Interior, a position which he held until March, 1944, when he transferred to the Office of Indian Affairs, to investigate reindeer ranges and herds in Alaska.

PLEADS FOR WHALES

Author Hopes That Some Will Survive Antarctic Hunt

News that the Antarctic is to be scoured more than ever for whales, the time to help relieve the European crisis, has saddened Apsley Cherry Garrard, author of the famous book on Scott's last expedition, "The Worst Journey in the World." He points out in an article in the London Sunday Express that the common sense of the business is that not too many whales should be killed; that small whales should be

"I have a fellow feeling with the hunted whale," he writes. "for with two companions I have been hunted by whales for two days and nights,

"On the night of February 27, 1911, the Antarctic sea-ice upon which we were travelling was smashed by a big swell. I suppose the whales thought we were seals, and the fact that we had suddenly became perpendicular instead of horizon-tal, contrary to all the rules of evolution did not make them hesitate at all.

"I am afraid they got three out of our four ponies, al-though I did not see thhem actually torn to pieces."

Dutch Buy Whaling Ships LONDON, (Canadian Press) -Holland is to purchase six whaling vessels from the United Kingdom. A Swedish tanker will also be bought for conversion to a factory ship. The fleet will be operated by a gov-ernment-supported company with a capital of about \$4,950,000,000.

CATCH OF WHALES IS RESTRICTED

International Pact Rules Operations in the World's Largest Breeding Area

Expedition ships from Brit-. ain, Russia and Scandinavia catching whales in Antare arctic climes this season for the badly needed meat of the cetaceans as food, as well as for their oil, more than ever, precious. One whale can provide as much meat as a herd of 125 cattle. When cooked it tastes somewhat like beef, but is not as tender.

South Georgia Island, off Cape Horn, is where the world's largest supply of whales is to be found. The only station in the United States is at Field's Landing, Calif. By international agreement all whalers are pledged to observe regula-tions governing the hunting season, and the number, length and kind of whale to be caught. Such restrictions are necessary because whales for many years have been slaughtered without

have been slaughtered without protective measures and are threatened with extinction.

Records and traditions indicate, says the National Geographic Society, that about 1.575 dwellers on the shores of the Bay of Biscay were the earliest whalers. From that time until the advent of the time until the advent of the steel ship and harpoon gun, whaling was one of the most dangerous, romantic and adventurous of occupations.

Whales, "as every schoolboy knows," are the largest animals known, either living or extinct. The blue whale, largest of all, reaches a length of 108 feet and a weight of 115 tons. Ten men could stand upright in its mouth, but that is as far as they could go, for the throat is only nine inches in diameter. Because of this small opening, blue whales are limited to a diet of small crustaceans, like shrimp. As much as six barrelfuls are eaten at one meal.

Whales are divided roughly into two classes-baleen and toothed. Baleen whales are those from which "whale bone" is obtained. This material, not actually bone, is suspended from the roof of the mouth, forming a fringe through which food is strained from the sea. Best known of the toothed variety is the sperm whale, whose teeth may weigh as much as four pounds each.

Sperm whales suffering from inflammation of the alimentary tract have deposits of oil their heads and intestines. This oil, known as ambergris, is used as a base for costly per-Other products made fumes. from whales are margarine, soap, candles, corset stays, glycerine and fertilizer.

Whales See Sub as Whale BRISBANE, Australia (Canadian Press)—When the British submarine Virtue ran through

SNOW CONDITIONS

Not all snow is white; red, blue, black and even green snow has also been known to fall. The colors in these rare snowfalls are due to a tiny fungus, or plant growth, in the air. At Halmstead, Sweden, on Jan. 3, 1924, red worms parachuted to earth in a snowfall. The same phenomenon occurred in respectable Massachusetts in February, 1892.

Snow is frozen water vapor; it is not frozen rain. Therefore snow can and does occasionally fall from a clear sky. Ten inches of snow, incidentally, "equals one inch of rain in water contentwhich explains the great depth of record snowfalls.

Snow falls in every latitude, even in equatorial regions. But in warmer zones it melts before reaching the ground unless the fall is on a very high mountain. Snow never falls on two-thirds of the earth's surface.

More snow falls in some parts of the United States than in the Arctic or Antarctic. The reason is that, since snow crystals are formed from water vapor, the more moisture there is in the air the more snow. The atmosphere of the polar regions is, of course, less humid than that of the temperate zones.

Contrary to popular belief, it cannot get too cold to snow, though the dryness of the air at sub-zero temperatures makes heavy snowfalls unlikely. The Byrd Expedition saw snow fall in Little America at 65 degrees below zero. Verkhoyansk, Siberia, called "the coldest spot on earth," has registered 94 below and has a mean winter temperature of 40 below-it snows there, too.

BIG HAUL OF WHALES

Over the expanses of the northern Pacific hangs a dense fog, the forerunner of snow-storms. Schools of whales have started their thousand-mile journey to warmer southern

Coming into Vladivostok harbor are huge Soviet whalers packed with blubber and tinned whale meat, says the Russian Information Bureau. In one day they bagged seventeen of the cetaceans weighing from 50 to 60 tons each.

It was in a violent storm that the whaling boat Avan-gard, under Captain Nefedyev, set out. Soon the lookout had sighted the quarry—a whole school—in its wake. The thunder of harpooning guns rolled over the sea, as the crews of three boats fought the whales. It was another successful haul.

a school of whales, some 60 to 70 feet in length, lazing on the surface of Moreton Bay, Queensland, she was apparently accepted as one of the whales as she cruised within twenty yards of one monster without causing any reaction.

U.S. Woman, 65, Captive 3 Years, Is Flown Back

Mrs. Etta Jones, a Teacher in Attu, Says Japanese Hit Her. Killed Husband

FAIRFIELD, Calif., Sept. 12 (A). gallant, gray-haired school teacher, the only American woman captured by the Japanese in the Aleutian campaign, stepped from an Army transport plane today after a flight from Japan.

She is Mrs. Etta E. Jones, sixty-five, whose husband, Charles, was killed by the Japanese at Attu, where both were captured in 1942.

She told with calmness and dignity of having been kicked and slugged by the Japanese, and of passing three years apart from the world in a Japanese prison. She could still speak with kindness of the children of Japan and of "the poor people.'

Her husband, sixty-two, had gone to work at Attu as a weather observer and radioman, and she was attached to the Indian Service there to teach the native children. They were the only white people on the island.

The Japanese came, 2,000 strong, on June 7, 1942, Mrs. Jones recalled today.

"I was beaten with the butt end of a rifle and struck across the back by a Jap soldier who had been acting as interpreter," she said. "He knocked me down, stepped on me and kicked me in the stomach. Then I saw them hit

The two were thrown into separate buildings. The next day natives told her that her husband had been killed by the Japanese; that the natives had buried him. She never learned the details.

my husband and knock him down.'

Within a few days she was taken by transport to Yokohama and was escorted to the Bund Hotel. There, she said, whether the en-emy guards respected her age, or for whatever reason, she received remarkably fine treatment. She was treated like a guest for the next three years, had good quarters, good food and the help of servants occasionally. Sometimes she could even walk the streets of Yokohama, accompanied by

A month after her arrival she was joined by eighteen Australian nurses who had been captured at New Guinea. She said she saw two of them slapped and knocked

"The children of Japan are teachable," she said today, "and I sympathize with the poor people, who hardly knew what it was all about. They were tired of war. They had a saying which, translated, means, 'Before, Japan had plenty. Now Japan no have got."

Mrs. Jones will leave soon for Seattle to check on her Attu property, then will go to St. Paris, Ohio.

Smile Unchecked



U. S. Pays Off Teacher in Big Way

Mrs. Etta Jones, reportedly the only white woman to be taken prisoner on American soil during World War II, smiles at the home of relatives in Silver Springs, Md., as she displays a check for \$7,374 given her by Secretary of the Interior Harold Ickes as back salary as Indian Office teacher on Attu Island. She and her late husband were captured by the Japanese in June, 1942, She plans to reside in Atlantic City, N. J.

22 Aleut Captives of Japan Reach U. S. on Way to Alaska

SEATTLE, Wash., Nov. 20—
Twenty-two Aleuts, captured by
the Japanese on faraway Attu on
June 7, 1942, are on their way
back to Alaska. Twelve are adults;
ten are children.

There were about 40 in the
group when Japan took Attu.
Seventeen succumbed in Japan.
They gained one in number when
a baby was born a month ago.

"We worked in clay pits for the
Japanese, digging clay with which
they made dishes, dolls, and soap,"
said Aleck Prossoff, spokesman for
the group.

Teachers Captured

Teachers Captured
The Aleuts and the government teachers at Attu—Mr. and Mrs. Foster Jones—were the only prisoners taken by the Japanese on this continent. Mr. Jones apparently was killed by the Japanese on Attu, for neither the Aleuts nor Mrs. Jones saw him after the first day. Mrs. Jones was taken to Japan a week later, but the Aleuts were kept on Attu for three months. Mrs. Jones returned to the United States in good health several weeks ago.

While on Attu, Mr. Prossoff, a wiry, small man with a sense of humor and a crinkly-faced smile, was asked by the Japanese about

was asked by the Japanese about the weather.

"I told them we didn't have bad weather. So they stored a lot of goods in tents. Then a storm came and blew the tents away and ruined a lot of their stuff. I flelt pretty good over this, but the Japs were angry. They told me I could have one more chance; but they never asked me any more they never asked me any more questions."

The Japanese attacked Attu during Sunday church services. Several ships appeared off Chicha-gof Harbor, where the Attu vil-lage was situated. A couple of planes circled overhead. "We thought they were Amer-ican planes," said Mr. Prossoff.

Village Machine-Gunned

They went on with their services. At the same time Japanese soldiers were landing at Holtz Bay and Sarana Bay, on each side of Chichagof Harbor, and climbing overland. When they came in sight of the village, church services were over. At once they machine-

U.S. Weather Stations In Arctic Are Favored

WASHINGTON, Sept. 17 (AP). Legislation to establish weather stations in the Arctic region of the Western Hemisphere in co-operation with other governments was approved today by the Senate Commerce Committee.

Senator Ralph O. Brewster, Republican, of Maine, author of the bill, said much of the weather affecting this country could be foretold if proper stations were set up in the Arctic in co-operation with Canada and other countries.

"Russia has 240 stations in the Arctic and we have practically none," Senator Brewster told newsmen.

gunned the village, wounding two

In Japan, the Aleuts were not brutally treated, but were fed a diet of two small bowls of rice and slabs of dried bean mash daily. Fish was given them twice a week. They worked every day, except that every second Sunday was allowed them for cleaning their quarters.

could hear a Japanese radio "I could hear a Japanese radio at night by going outside, said Mr. Prossoff, who learned to speak Japanese by talking with civilian guards. "By listening to the radio I got some idea of what was going on in the world and that was how I heard about the German surgender."

"Next day I told our guards that "Next day I told our guards that Japan could not win the war. They didn't believe me. But they didn't punish me. I never was punished except when Army guards kicked and slapped me as I boarded the boat to come to Japan. The civilian guards in Japan did not hurt us."

New Alaska-Aleutian Maps

SEATTLE, Oct. 14 (U.P.)-United States Coast and Geodetic Service crews have put the last touches on sets of new charts of the Alaskan and Aleutian Coasts, aided by photographs from a giant nine-lensed camera, believed to be the only one of its type in the world. The aerial photographs were taken by the big camera from a height of 2,000 feet. The camera was salvaged undamaged from an airplane crash on Adak in the Aleutians in which all members of the crew were killed.

Pigs Replace GI's

AN ALEUTIANS BASE (AP) -The GI's chuckled, the pigs grunted and the chicks peeped. It was a lovely farmyard scene. Except it was difficult to tell who was laughing at which, GI's at pigs or pigs at GI's. The GI's at pigs or pigs at GI's. The soldiers had been here a long, long time. The pigs and the chicks were new arrivals. After nearly four years of living in these bleak, foggy islands some of the GI's are getting out. Now the Government has sent twenty-five pigs and 480 chicks twenty-five pigs and 460 chicks up here to see if they can live in this bleak, foggy, forlorn

Navy Is Trying To Strike Oil in North Alaska

Weather Blocks Drilling at 1,816 Feet, but Results Are Found Encouraging

By Richard G. West

New York Herald Tribune Copyright, 1945, New York Tribune Inc.

POINT BARROW, Alaska, Nov. 10 (Delayed).—The United States Navy is trying to strike oil in a 35,000-square-mile tract of snowy wastes at the north tip of Alaska, It was revealed today. Seabees have drilled a test well at Umiat, on the Colville River 180 air-line miles south of here, and the results of the first four months of operation have been encouraging, although the practical value in the immediate future is dubious.

The well has been shut down for the winter because of lack of water in the cold months, but in the spring the Seabees will again attempt to discover if the vast oil reserves which geologists believe may lie below the bleak plains are really there.

The story of the attempt to sound out the possible oil reserves was told today to a group of news-paper men flown by the Naval Air Transport Service on a tour of Alaskan naval installations. The base at Point Barrow, northernmost point in United States territory, 350 miles north of the Arctic Circle and only 1,100 miles from the North Pole, was built by the Seabees late in 1944. Until today the enterprise has been on the Navy's list of restricted information

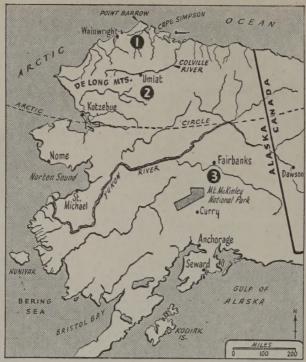
\$2,120,000 Appropriated

The huge area, stretching from Wainwright on the Arctic Ocean west of Point Barrow, south to the DeLong Mountains and east along the Colville to the ocean, has been classified as an oil reserve since 1923, when a geological survey reported subsurface structures at Umiat which promised oil. It has been known as Naval Petroleum Reserve No. 4, but not until last year, when Congress appropriated \$2,120,000 for the work, was an effort made to tap the resources.

A special detachment of Seabees,

all of whose 200 officers and men were former oil executives, engineers, field or construction workers, were trained and then em-barked for Point Barrow fortytwo days after the order for the expedition was issued on June 2, 1944, by Rear Admiral Harry B. Stuart, retired, then director of Naval Petroleum Reserves. The base at Point Barrow, where the ice-free season is only six weeks long, was built before winter set in. The 180 air-line miles to Umiat proved to be 331 miles over the snowy tundra, but tractor-trains took the men and supplies, including some of the heaviest construction machinery, to the spot where drilling began last

Navy Starts Development of Alaska Oil Reserve



The Navy's Seabees are drilling for oil in a 35,000-mile tract of snowy waste at the northern tip of Alaska. (1) The area stretches from Wainwright, on the Arctic Ocean, south to the De Long Mountains and east along the Colville River to the Arctic Ocean. A test well has been drilled at Umiat (2) and if oil is found in sufficient quantity it is expected that a pipe line will be built from Umiat to Fairbanks (3) to connect with an existing pipe line which runs to an open port

schedule.

Drill 1,816 Feet Down

Using a Diesel-powered rig, a jack-knife derrick and power-driven pumps heated and housed to permit drilling eleven months of the year, the Seabees had plumbed 1,816 feet through the hardest kind of rock before the work was halted on Oct. 3 by the freezing of available water. Bringing up core samples every foot of the way, they had penetrated four layers of low-pressure sands which showed indications of oil at 200, 500 and 1,500 feet. The engineers believe that the production horizon of the test well will be between 3,000 and 5,000 feet.

There are now 300 Seabees and other Navy personnel and about twenty Army communications men at this base. At the peak of the work last summer there were 580 men here. Sixty men will pass the winter at Umiat to keep the machinery in order. Lieutenant Com-mander Paul D. Davis, of Albany, succeeded Lieutenant Commander william H. Rex jr. as commander of the 1058th Construction Bat-talion here about a month ago. Navy Captain Bart W. Gillespie led the original expedition.

Preliminary surveys have been made for a 600-mile pipe line from Umiat to Fairbanks, where an existing line runs to Skagway. Engineers believe the oil would be

June 23-four months ahead of of such low viscosity that it would flow through the pipe freely at 40 degrees below zero, requiring no heaters along the line. But pro-duction of 100,000 barrels a day would be needed to justify its construction.

> Only about a year ago was the geological map made in 1923 worked out in detail and it is reported to have shown "an interesting geological structure." The Navy emphasized that the present work was entirely exploratory and work was entirely exploratory and was aimed only at learning whether there was oil under the frozen wasteland. If a future national emergency should call for oil from this section, provided there is oil in quantity and quality here, the Secretary of the Navy would recommend drilling and this recommendation would have to be endorsed by the President for action by Congress. It is believed. too, that such drilling would be done by private oil companies.

Surveyed for Pipeline

The established Navy policy co-incident with the drilling of the first well, a survey of the land between Fairbanks and Umiat No. 1. has been conducted to learn if a pipeline would be practicable. This survey went north from Fairbanks to Livengood, thence to Yukon and north across the Koyukyk River, up the John River Valley and over the Endicott range into Umiat. This 600-mile stretch would have no elevation higher than 2,500 feet to traverse and oil men believe the oil, if found, would be of such viscosity that it would flow through the pipes at temperatures as low as 40 degrees below zero.

To get the heavy drilling equipment from this point to Umiat on

the Colville, a caravan of tractor trains had to be used. These were made up of tractor sled go-devils with bulldozers as locomotives over terrain rarely if ever traveled. The trip was made without incident despite blizzards and weather that sometimes dropped to 57 degrees below, at which point the

mercury freezes, too.

The well-drilling equipment being used is of the most modern type. The rig is Diesel powered and is of the type known as jackthe tribular even in extreme weather. This has proved true, but the Navy appar-ently did not figure that the freez-ing of the water would stop drilling, even though the derrick and crown block were steam heated.

Drill Crews Playing Poker

Three drill crews working in eight-hour shifts are now at the well, but there is little for them to do. At present they are engaged in a marathon poker game and the paymaster has to go down to Umiat by plane regularly to pay them so they can keep the game on a cash basis.

One thing which has made the drilling proceed at a slow pace is the practice of taking core samples at every foot. This is to give the Navy the detailed information it wants in working the field. Another thing that contributed to the slow progress is the hardness of the rock. Commander Davis and Lieut. Jay W. Hugg, a petroleum engineer of Odessa, Tex., agreed that the rock was the hardest in the world.

Navy plans now call for completion of the exploratory phase of the program by the end of summer, 1949. At that time the eastern third of the reserve will be exern third of the reserve will be explored, then the United States Geological Survey may take up the exploratory work on the other two-thirds, while the explored third may be put in the hands of a commercial contractor, who would have a contract with the Navy to make the pipeline from Fairbanks to Umiat profitable. It is estimated that production would have to reach 100,000 barrels a day, with a reserve of 400,000,000 day, with a reserve of 400,000,000 to 500,000,000 barrels. The four low-pressure sands already penetrated were found at 200, 500, 1,300 and 1,550 feet. At the same time it was learned that five Caandian geological survey parties are working in the Yukon in Can-ada, looking for the possible rich oil fields that have interested men for years. It is known that there are vast oil-bearing sands in Canada, but lack of either gas or water pressure to bring the liquid up makes their exploitation un-profitable. At the present time no gas pressure has been found in the well now being drilled by the Navy.

Diesel Oil Flown to Alaska

All diesel oil for mining operations in east central Alaska has been flown in at a cost of \$1 a

VETERAN INFLUX FEARED IN ALASKA

Governor Warns on Disappointments Since Territory Offers Limited Opportunity

JUNEAU, Alaska, Nov. 12 (Delayed)-Alaska is more than a little perturbed lest discharged service men in large numbers but with little capital and no definite idea of what they want to do will descend on the territory in the hope of carving out a future for themselves

Gov. Ernest Gruening painted a rather gloomy picture today of the opportunities for veterans in Alaska and said that he felt it was a tough problem which was beyond the means of the territory to handle. He added that in his opinion the whole thing should be tied in with some sort of plan by the Federal Government.

Mr. Gruening thinks that the Veterans Administration is woefully understaffed in Alaska. In an area which sent better than 7,000 men into the armed forces, the agency has two agents and a stenographer to handle their prob-

The return of Alaska's own veterans is not worrying officials and many business men so much as the heavy influx of former service men who had served in the territory, or others who plan to try Alaska as the land of opportunity.

Some business leaders, however, believe that the incoming men may be a boom to Alaska, but they also feel that something should be

done and some measures should be taken to assist the men. Governor Gruening thinks that no service man should come to Alaska without at least \$2,000 in capital or a certain job or some definite ideas of what he wants to do. Otherwise, he said, they may be sadly disillusioned. Even under the GI Bill of Rights he added, loans to veterans will carry an 8 per cent interest rate.

It has been suggested here that there should be some sort of selec-tion exercised in taking in former service men, with screening sta-tions set up, in Seattle for exam-ple, where the obvious failures

could be weeded out.

Many Alaskans feel that President Poosevelt's statement at Bremerton on Oct. 19, 1944, in which he invited all returning service men to turn to Alaska to help develop America's last frontier was much too optimistic.

A survey conducted for the State Department is said to have shown that in the next ten years only 15,000 new jobs will be avail-

able in Alaska.

Navy's Oil Search Is Approved,

WASHINGTON, Dec. 4 (P)—
The Navy asked Congress today to permit continuance of a search for new oil sources in its Alaskan reserve. Commodore W. G. Greenman, director of naval petroleum reserves, urged the House Naval Affairs Committee to reaffirm its

Oil-Drilling Rig Pulled Over Snow-Covered Alaskan Terrain



United States Navy

Apparatus mounted on sleds is drawn by bulldoxer en route to Umiat, where Seabees probed for oil

Siren Tells End of War To Far North Eskimos

By The Associated Press.

BARROW, Alaska, Aug. 15 -A prolonged blast of the siren bought to warn of possible Japanest air raids brought Eskimos of this most northerly town news of the war's end.

Hunters quickly gathered in front of the church and fired several volleys out over the ocean. Then they gathered at the school and the radio gave details of the surrender.

The Eskimos hope they may soon again buy brightly-colored cloth for their parka covers.

A big dance was held last night with music from drums made of walrus stomach linings stretched over driftwood hoops.

approval of the project and to recommend that the Appropriations Committee approve the necessary funds. The committee took the requested action.

Army Arctic Clothing To Reach Market Soon

149,000 Snow Shoes To Be Among Items Offered

WASHINGTON, Sept. 12.— Nearly \$21,000,000 worth of surplus winter clothing and equipment will be released "soon" to the Department of Commerce for sale to civilians, the War Department announced tonight.

The material, which was pro-cured by the Army for campaigns in the Aleutians and other cold includes the following: 47,000 mountain sleeping bags; 246,000 Arctic sleeping bags; 169,-000 ski and jersey-lined trousers; 149,000 trail snow shoes; 123,000 ski mountain boots; 127,000 mountain skis; 234,000 ski poles; 636,000 polarized ski goggles; 75,000 Arctic felt shoes; 532,000 ice creepers, and 22,000 wool sleeping bags.

Alaska Oil Reserve Uncovered By Big Expedition of Seabees

of the greatest and most dangerous treks in the history of Arctic exploration has just been completed by the Navy's Seabees. who pushed their way northward through Alaskan ice and wilderness to within a few hundred miles of the North Pole to unearth oil reserves which the Navy describes as having "immense value."

To accomplish this feat the Seabees had to bring the "world's heaviest construction machinery" to a remote region of Alaska known formerly only to whaling ships and dog teams.

Only a national would bring the Navy's Alaskan oil properties under complete development. But the Navy wanted to know whether oil in large quantity existed in this reserve covering 35,000 square miles at the northernmost tip of Alaska, near a point called Wainwright and the Delong Mountains.

The expedition, under the leadership of Captain Bart W. Gillespie, of San Gabriel, Calif., set out with 8,200 tons of freight, eight times the weight of the standard polar exploration gear. The ships moved into Bering Sea and the Arctic with PBYs flying as lookouts for dangerous ice

The expedition reached the ice fields ready for a year's seclusion. Amphibious landings had to be made at carefully selected sites off Point Barrow and Cape Simpson, beyond Barrow, but the enemy this time was the violent Arctic ice-no docks or ramps being possible. L. C. M.s and pontoon barges, the latter husky, sturdily built and self-propelled,

took the men and their equipment ashore. The unloading had to be

done three miles off shore in shifting ice. They encountered fog, but time was too precious to wait for favorable weather.

An airstrip was begun immediately to provide for air communication with the outside before September ice-locked the Arctic. A camp was established with warehouses to protect machinery against humidity and extreme temperatures. Geologists and oilwell drillers previously had determined the best site for drilling the first well-at Umiat, on the Colville River, 180 air miles from Point Barrow, in the southeast corner of Naval Petroleum Reserve No. 4.

This proved one of the most desolate points in an isolated country. totally devoid of inhabitants. It was to this point that the expedition's detachment had to make its way with this ponderous equipment. With bulldozers for locomotives, trains of tractor-sleds, snow-jeeps and other ingeniously heated equipment, the strange, modern icecaravan made its way to Umiat.

In the course of its journeys the caravan endured 50-degreesbelow-zero weather. No fatalities or serious accidents were recorded for any of the expeditions, either to Cape Simpson or Umiat. Furthermore, no damage has been recorded, nor was any equipment lost or abandoned. But the expedition was marooned, for a time, in a blizzard.

Alaskan oil was known to the Russians before the United States bought the territory in 1867 for \$7,200,000—one cent an acre. In the northern reaches, oil seepages were dis-covered at Cape Simpson, east of Point Barrow, in 1909, and at Wainwright Inlet, west of Point Barrow, in 1915.

Far North Bases Supplied by Navy Flyers

Fleet Air Transport Crews Defy Roughest Weather in World to Carry Admirals and Gobs, Generators and Thread, to Remote Outposts

By Richard G. West

New York Herald Tribune

The Naval Air Transport Service is the workaday fleet of airplanes which for more than three years has carried admirals and gobs, generators and spools of thread wherever the far-flung operations of the United States Navy knit the world together in the war and the peace. Its planes and pilots have operated in combat zones and through the worst flying weather in the world on a schedule which a commercial air line would envy, but their work has been largely obscured by the more spectacular deeds of their fighting comrades.

NATS, as the Navy knows the service, has flown from the Continent of Europe and Iceland to Okinawa and the Philippines, to Greenland and Rio de Janeiro, and to Point Barrow and Attu. On Oct. 1, 1945, it operated 436 transport planes over 52,896 miles, with 6,217 officers and 20,441 men in its fight and ground.

Recently a group of newspaper correspondents, as the guests of NATS, toured the regular run of Seattle, over Alaska and the Aleutian Islands, 7,956 miles round passengers are a motley lot-any

and out the Aleutian chain to Attu and back through Kodiak and Fairbanks to Point Barrow, northernmost naval base, 400 miles beyond the Arctic Circle and only 1.100 miles from the North Pole. Flying over rough country, and through the roughest weather in the world, they saw what the NATS men take as the day's work. It was a sample of the service around the globe.

VR-5-the V stands for heavierthan-air, the R for transport and the 5 is simply a number-operates regular schedules from Seattle to Attu and Point Barrow, places impossible to reach the year round except by plane, using Douglas R4D and R5D planes, two and four engined ships the equivalent of the DC-3s and DC-4s employed on commercial air lines.

Lately the squadron has had eighteen R4Ds and five R5Ds, with forty-five pilots and fifty-five copilots on duty. The larger planes have a 9,000-pound cargo capacity and seats for forty-two passengers. The cargo may include the heaviest operating machinery needed one squadron-VR-5-based at for a remote base and the tiniest item required by a hospital. The

trip, from Seattle through Kodiak Navy, Army or Marine personnel who have traveling orders may hook a ride if there is room. The freight, human and inanimate, is pretty much that of any regular commercial air line.

> There are commercial air lines in Alaska, and the Air Transport Command, the Army's opposite number, flies some of the same routes, but NATS bucks all the weather there is, and VR-5 has not lost a plane or had a serious accident since it began operation in June, 1942.

Those were the desperate days of the war, when America's northern defenses had to be built up from scratch. Alaska was an air-minded region; the bush pilots, who served prospectors and hunters, had been flying for years, but there were no established fields and no navigational aids such as had become common along the airways in the forty-eight states. The first NATS pilots landed where they could, in fog and storm, on half-finished strips, navigating by guess and by luck. Now the urgency of war flying has developed radio range stations which blanket the territory, and ground-controlled approach systems, which bring planes in by radar to the blindest landings.

But even now there is a stretch or two where the pilots are lone-One is the 517-mile haul

from Fairbanks to Point Barrow. There is only one radio range station in that distance, a flight which crosses the 11,000-foot Endicott Mountains, where temperatures of 30 below zero are common.

This route was pioneered last January by Commander J. R. Hol-lenbeck, then head of VR-5, to supply the Navy's expedition which was trying to discover if billions of gallons of oil lay under the Arctic slope, as geologists had predicted. The Navy established a post at Point Barrow in August. 1944, and sent an advance party of Seabees to Umiat, 175 miles southeast, on the Colville River, to drill a test well. Ships bore the first parties in the six weeks of open water at Barrow, but during the winter the task of supply fell upon NATS. By February, month after the first flight from Fairbanks, three flights a day were routine.

They had their troubles. There were no runways at Barrow or Umiat. There was just ice and, as the thaws began, ice and gravel. But the planes got through, and in April and May, 1945, more than 2,000,000 pounds of cargo were flown in to the Seabees. Much of this was unloaded directly from the planes onto dog sleds from the most modern to the most primitive means of Arctic transportation. Heavy pipe, tubing, oil drums, caterpillars, food, medical stuff—NATS took it all.

Once a NATS plane was headed for Barrow with 8,000 pounds of dynamite. The ceiling closed in and the gas supply dwindled. crew pitched out 1,000 pounds of dynamite onto the Arctic waste, one man holding the door against





Navy Skymaster files over a ruftle of clouds with Alaskan peak in background. Right: Dog team and driver stand by as cargo is unloaded from a Naval Air Transport Service Skytrain at Point Barrow

the slip stream and others tossing feverishly. But the plane came in, save and sound, with the rest of her cargo.

Recently, Rear Admiral J. W. Reeves jr., commander of NATS, stationed at Oakland, revealed that last August, soon after the end of the war against Japan, four flights of NATS planes flew sixty-five tons of equipment and personnel to Khabarovsk, Siberia, to establish a fleet weather station which would give valuable information to American naval units in the North Pacific. Plans for the project had been begun long before the war ended.

NATS still flies reguarly to Barrow, the one dependable link with the outer world for a station of 200 lonely Navy men on the edge of the Arctic Ocean, and to Attu, westernmost of the Aleutian Islands, only 400 miles from Asia, which the 7th Division wrested from the Japanese in May, 1943, in a heroic three-week battle. Where its planes fly is spun a brief tle with home.

Alaskan Catch of Seals Is Valued at \$4,000,000

ST. LOUIS, Sept. 18 (AP).-The Alaska seal, once almost extinct, has yielded another \$4,000,000 crop of skins and an estimated \$1,000,000 more for the United States Treasury. The 1945 expedition to the small Bering Sea islands of St. Paul and St. George, in the Pribilof group, reported a catch of 76,700 seals,

Fouke Fur Co., of St. Louis, which finnaces the expeditions on behalf of the United States and Canadain governments, estimated the skins will have an average value of \$50 to \$55 each when they are prepared for tailoring.

The catch this year will be enough to make 10,000 coats of current styles, said G. D. Gibbons, vice-president of Fouke. Six to seven skins are needed for each coat.

Until the first batch of processed skins is auctioned Oct. 8, the entire supply remains the property of the United States and Canadian governments, 20 per cent belong-ing to Canada and 80 per cent to the United States.

Where Navy Flyers Conquer Alaska Weather and Terrain



Naval Air Transport Service stop at Fairbanks from which cargopassenger planes hop off for Point Barrow to fly through some of Navy photographs the world's worst weather

Fliers From Attu Used Soviet Field Before Russia Joined Pacific War

HEADQUARTERS, Fleet Air Wing 4, Attu, Aleutians, Aug. 8 (Delayed) (U.P.)-Russia's entrance into the Pacific war today made it possible to reveal that American airmen flying against Japan from the Aleutians had long used the Russian port of Petropavlosk as an emergency landing field.

Until now, at least, landing at "Petro" on the southeast shore of the Kamchatka Peninsula, has meant temporary internment for the American airmen. Liberators, Mitchells, Venturas and Harpoons have been flying across the north-ern Pacific and the Bering Sea to the Kuriles from Attu and other Aleutian bases for more than two

years. Comparatively few planes have been lost to enemy action, but many failed to return because of mechanical or weather troubles.

Within the past year, eight Liberators alone have landed on Kamchatka for emergency haven when it became impossible to make the hazardous 700-mile return tripto the Aleutians. American planes landing in the vicinity of Petro-pavlosk have been permanently interned, but crew men have eventually been returned to the United States.

Liberators taking off from the Aleutians in recent weeks carried what the crewmen called a "Petro kit." It is a box containing emergency supplies of clothes and extra

rations of cigarettes for use at "Petro"—if they should be needed. The choice of trying the return flight across the Bering Sea or northern Pacific after one—or sometimes two—motors were out or of landing at Petropavlosk was always strictly up to the plane commander.

Alaska Once Was Iceless

During the late glacial period, 15,000 to 25,000 years ago, Alaska was without ice, although glaciers covered most of North America.

Seal: 72c Worth fur Us All

WASHINGTON, Dec. 11 (P)—
Greetings, fellow seal owners!
You may not know it, but each and every one of you owns 72 cents' worth of seal.
This statistic is supplied by Col.
P. B. Fouke, whose St. Louis plant processes more than 90 per cent of the world's seal furs.
Mr. Fouke points out that the U. S. owns the entire herd of 3,000,000 seals which hang around the Pribilof Islands, up in the Bering Sea. These seals are valled at \$100,000,000, so each of us 138,000,000 Americans has a 72-cent stake in the business.
Furthermore, business is booming. Last year the U. S. Treasury stuffed \$1,750,000 in its sock—its cut from the seal industry.
Things haven't always been so together for 25 years,



"WELL DONE," was the Navy's comment on this base in the frozen, fog-bound North Pacific. This air strip on Attu proved its value as an outpost for the defense of Alaska.

The Arctic Frontier

By VILHJALMUR STEFANSSON

THINK Magazine. OCTOBER, 1945

'N THE practical stage of exploration, before 1850, success was judged in relation to apparent commercial possibilities discovered, and reports tended to be optimistic; after that decade the absence of commercial value from the results of Polar exploration was taken for granted and it became a merit to report conservatively if not pessimistically upon such things as navigation conditions and economic resources. Following the successes of Nordenskiold and Amundsen there was, accordingly, no hue and cry for the commercial exploitation of the Northeast and Northwest Passages, Those writers on northern exploration were most highly regarded who cautioned their readers not to expect that navigating the passages would ever be profitable.

The new cycle of optimism with regard to the commercial possibilities of the North, which began some time during the last forty years, has behind it two main forces, one general and the other specialthe world-wide development by which air travel is tending to replace water travel, and the local policy of the Soviet Union with regard to its northern lands and their adjacent seas.

Plans for transarctic air commerce, although greeted as forever absurd when broached, are now such commonplaces that we can summarize them in a paragraph and without argument; for all the sceptics, or nearly all, are now trying to act like men of vision, their keen eyes penetrating the mists of the future. Books, magazines, newspapers, radio and daily conversation are full of references to "Great Circle Routes" and it is a commonplace that the short flight home from Egypt, if you live in California, is by way of Iceland. Everybody is now telling everybody that you have to go a little out of your way southward, not northward, if you fly from New York to Chungking by way of Alaska, and that a leftward detour of only a few miles on the flight from Chicago to Calcutta would enable you to look down upon the North Pole a little before you reach the mid-point of your journey.

Take with these commonplaces certain other facts



that are beginning to sink in and you have such a vision of northward air transport as the United States had a century ago of westward overland transport when our people were projecting and building railways toward the Pacific. From among these facts that are hammering at our consciousness we mention only threethat average natural fly-

VILHJALMUR STEFANSSON

ing difficulties in the Arctic are not greater than on many routes which are now regularly flown in the temperate zone, that 90 per cent of the people of the world live north of the Equator, and that most of the richest cities in the world are nearer to the Arctic Circle than to the Equator.

Remembering these things, compel yourself to discard flat-earth thinking in favor of the global and you will see with your mind's eye a network of air transport lines of the future that crisscross each other in or near the Arctic as they bind together in commercial intimacy first the great trading centers of the north temperate zone and then the populous but commercially less active communities of the northern tropics.

This much follows immediately when you gain a mental grasp of the roundness of the earth and of the potentialities of aviation. The other big factor tending in the same direction is the northward looking policy of the Soviet Union. This was brought out in the first three of her Five Year Plans, particularly in those parts of them that relate to the Administration of the Northern Sea Route. That administration, before the war, handled not merely sea transport but practically every colonizing and economic development, including mines, agriculture,



Left: Soviet fliers taking weather observations at camp set up on Arctic ice-floe.



Research station at Tixie Bay at mouth of Lena River. forests, roads, rivers and air transport, in the region north of 60° N. Lat., meaning a territory nearly as large as the United States.

That the policy of the Soviet Union is crucial as to northern development we do not see unless we compare and contrast it with our policy, that of the United States and Canada.

During the last pre-war year, 1938, less than twenty different airplanes crossed the Arctic Circle in Alaska and Canada combined, flying almost certainly less than 10,000 airplane miles within the Arctic. Most of these were single-engined planes, none more than two-engined. During the same year more than a thousand different planes worked within the Soviet Arctic, some of them four-engined. It is conjectured that they averaged 5,000 miles of Arctic flying each, making at least 5,000,000 airplane miles against our 10,000.

90 90 90

IN NORTHERN enterprise, a comparison in planes is not the only one that favors the Soviet. For instance, they had north of the Circle before the War about sixty "Arctic Stations," centers of research in pure and applied science. In that field the best we can do is to say that the Presbyterian Church then had one medical missionary and some trained nurses at Point Barrow, while the Canadian churches combined had in their Arctic two or three doctors and certainly under a dozen really trained nurses, this against research staffs at many of the Soviet stations that compare favorably with the scientific parts of the faculties of our small colleges—in addition to doctors of medicine they had specialists in geology, together with magneticians, meteorologists, zoologists, botanists, marine biologists and anthropologists.

Below: Siberian port of Igarka, known as the Polar Capital, north of Yenesei River in the Arctic.

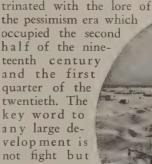
Counting all services that the United States and Canada sent into the Arctic just before the War, there were engaged at most a few hundred men in summer and a few dozen in winter, this figure not needing to be raised much if we include all scientists, reporters and others sent north beyond the Circle by private financing. We get a contrast to this from a correspondent sent to the Soviet Arctic in 1936 by the London Times, who characterized what he found in the title of his book, Forty Thousand

Against the Arctic. By the start of the War that number had surely been doubled; ours, in the Alaskan and Canadian Arctic, had not been increased

materially between 1935 and 1939.

For the nature of her policy in the North the Soviet Union, through her writers, has given two main explanations. The first is that they believe in the development of the North somewhat as we, at a corresponding stage of colonization, believed in the development of our West. The second of the main assigned reasons is military. In the period of the first three of the Five Year Plans they were expecting to be attacked by Japan from the east, and felt they needed a second string to their transportation bow—in addition to an all-year rail route, the Trans-Siberian, they wanted a summer route from the Atlantic to the Pacific for steamers, the Northeast Passage, called by them the Northern Sea Route.

The northward colonization policy of the Soviet Union needs no explaining to those North Americans, whether of the United States or Canada, who know the history of their own territorial growth. The success of the Northern Sea Route needs explaining, for most of us are pretty thoroughly indoc-



Arctic tugs in Lena River base.



adaptation. Instead of thinking how to overcome the disadvantages of long winters, the pioneers of the Soviet North seek to capitalize on winter cold as advantageous, and so through the entire gamut of conditions they meet there. Instead of worrying that glaciers are bad, Soviet flyers think how lucky they are to have them in places like the rugged and

rocky Franz Josef Islands for use as airplane landing fields where otherwise there would be no natural landing places; instead of deploring that the rivers are ice-covered so many months in the year, Soviet engineers consider what fine natural highways the ice makes, permitting tractordrawn trains of sledges to wind their way during half the year between the northern seaports and the interior of

their continent—natural tractor freighting routes of 2,000 miles each along the Ob, Yenesei and Lena, 1,000 mile routes on shorter rivers like the Indigirka and Kolyma. Instead of thinking what a disadvantage it is to have the soil permanently frozen, from Just below the grass roots to depths of hundreds of feet, the road builders dwell on the fortunate circumstance that what would otherwise be soft mud is hardened by the frost into the equivalent of concrete, so that all you have to do is to refrain from scraping the soil off, and to add some further insulation of moss, grass, sawdust or hollow bricks, and there you have a ready-made concrete bed for your highway, your railway or your airplane landing field.

The Soviet Union, like North America, is a land of southern derivation in the thinking of its people and in their way of life. Unlike us, or at least as far in advance of us as the date of their first Five Year Plan, they have set themselves, as a definite national policy, the task, as novel for them as for us, of adaptation to northern conditions, to the end that they shall be able to support on a thousand square miles of Arctic prairie a number of people comparable to what we or they can now support in, say, regions that are semi-arid, such as their Tadzhik Republic and our State of Utah. Like our General Eisenhower, Soviet leaders evidently believe that "strength can cooperate in anything, weakness can cooperate in nothing." They are determined to remain strong and to grow progressively stronger, as members of the family of nations. One of their keys to a strong future is the colonization and full utilization of their whole land, not merely from the Baltic to the PaRight: Potatoes blossom at lgarka agricultural experimental station.



Polar experimental station where Soviet scientists are developing cold-resistant vegetables and fruits.

cific but also from the borders of Turkey and India in the south to Rudolph Island, most northerly spot in the Old World, only 500 miles from the North Pole.

The Union of Soviet Socialist Republics has already shown herself to be something more than a promising understudy for the rôle we used to believe solely and securely ours, that of the young giant who does the impossible.

They have now set themselves to do one of the things

we have considered impossible, the colonization of the Arctic and its full utilization, comparable to that of temperate zone or tropic lands. Should they prove capable of adapting themselves to northern conditions it would be one of the turning points of world history. For their success would result in our following their example, thus bringing about conversion of our entire globe to the uses of man.

Our keeping step with the U.S.S.R. in its northward growth will not be possible unless the United States and Canada together decide to make, at the same time with her and on a like scale, those studies which will determine whether the so-called Anglo-Saxons of our countries can adapt themselves to

an Arctic way of life. If it proves that the Soviets can do what they think they can, and if we are capable of matching their achievement, then our three countries can develop in Alaska, in the northern two-thirds of Canada, and in the northern half of the Soviet Union, a Last Frontier of great and novel resources, a new world in the Arctic with twice the territory of the whole

United States.



Greenland Also Served

By Julius Moritzen

CHRISTIAN SCIENCE MONITOR

HISTORIANS, who in the days to come deal with this greatest of all wars in its completeness, will not fail to give to Greenland the credit due this Danish colony for what it contributed to victory.

When Hendrik Kauffmann, Denmark's accredited Minister to the United States, courageously took it upon himself to arrange with the American Government the taking over for the duration of this far-flung land of the northern continent, not even he could have realized to what an extent Greenland would come to serve the cause of the Allies against the Axis. And yet, in that fog-bound and iceenshrouded territory, deeds of daring took place that spelled disaster to the Nazis largely through the action of native Greenlanders and heroic Danes whose task it was to keep inviolate Denmark's colony in the North Atlantic.

When, on July 11 of this year, the Danish ship Disco for the first time in five years sailed into the harbor of Godthaab, the good vessel wrote a new and encouraging chapter in the history of Greenland. Prime Minister Vilhelm Buhl could not have put it better than when he paid tribute to the Disco as she left Denmark for Greenland on June 28 in the words: "It is a great event for the State Ministry and for the Greenland Administration that we are today able to send this good ship to Greenland. This symbolizes that the connection between our two countries has been re-established. We wish to ask the many people who are now returning to convey our greetings to the people of Greenland, and to thank them for their loyal work.

Needless to say, the reception accorded the Disco on her arrival at Godthaab corresponded in every way to the fine sendoff when she left Copenhagen. As described by an eyewitness: "Many motorboats crowded with Greenlanders went miles out in the firth, enthusiastically firing their guns in welcome. Later, Eskimos in kayaks joined the welcoming party, jubilantly paddling around and shooting their hunting rifles.

"When finally anchored at the colony pier, the ship was stormed by Greenlanders with mingled smiles and tears on all faces, and with endless hurrahs filling the air. In the evening a stone memorial to the crew of the Hans Egede, the Greenland steamer that during the war disappeared in Davis Strait en route to the United States, was dedicated. Thereafter the Greenlanders, for the first time in years, hoisted the Danish flag on the new flagpole they had erected in memory of their liberation."

Just as the Disco re-established the connection between Denmark and Greenland, so on the Fourth of July the annual Rebild celebration, interrupted by the Nazi occupation of Denmark, was again

held this year with a large attendance of visitors which included the Director of the Greenland Administration, Knud Oldendow, who as one of the principal speakers of the day paid tribute to the United States for its benevolent attitude with regard to Greenland.

"When through the brutal acts of the Germans," said Director Oldendow, "our connection with Greenland was at once and effectively cut off, the position of our colony became decidedly vulnerable. We were unable to assist Greenland in any way and the situation was tragical.

"America, however, did not forsake her ideals. The gigantic country placed all its wealth, all its power, at the disposal of our colony. President Roosevelt, whose name will illuminate history, declared publicly that Greenland was part of the western hemisphere, and was thus covered by the Monroe Doctrine."

Mr. Roosevelt desired to make Greenland secure as a Danish colony, so that no other flag but that of Denmark could be flown up there.

The Rebild gathering followed Director Oldendow with close attention as the head of the Greenland Administration said that Denmark and the colony felt no little pride in having been able to contribute in a small way to Allied victory.

"This rough and forbidding island in the middle of the Polar Sea," he said, "neighbors to the North Pole, as the Greenlanders have been called, did its part so well that the powerful America, and Canada also, feel grateful to Greenland. Our big colony was active in the war against the common enemy. For in Northeast Greenland warlike acts took place where our good Danish hunters added something of importance by destroying German meteorological stations.

"Greenland became the stopping-over place for powerful squadrons of fliers on their way to Europe and as points of support for the movements of the fleets of the Allies. Air bases were constructed in the face of great difficulties within the storm-swept inland ice. Meteorological stations were built in great numbers, after consultation with the Americans, for the reports of all weather conditions, so important to fliers and ship movements.

"The colony paid its share for the 'housekeeping' of the Allies by the delivery of Greenland products. The Ivigtut mines contributed the cryolite so essential to the American and English aluminum industry, the metal for planes and other war material. It cost us the sad loss of our renowned Hans Egede, which went down with every man on board. All in all, Greenland did its part in the final reckoning against foreign and unwelcome ideologies and the greedy lust for power of the misguided masses of the Herrenvolk.

"On this day we greet America, and send our thanks from Rebild across the broad Atlantic for the grand and glorious end to the war in Europe. We rejoice in the fact that the conference at San Francisco has been successful in creating a new world compact through which the United Nations can carry forward the traditions on which are founded the American Constitution."

There is no doubt that to America's vital bases in Greenland the United States owed much of its ability to put dominant airpower over Europe in such brief time. Martin Sheridan, an accredited Navy war correspondent, writing in "Plane Talk," the house organ of the Consolidated Vultee Aircraft Corporation, tells a fascinating story of how American fliers utilized the Greenland bases to the full.

"Literally thousands of our planes," wrote Lieutenant Sheridan, "have flown across the Atlantic. Our crews were well aware that they could land at one of the several bases in Greenland should the weather close in or any mechanical difficulties develop.

"Greenland as a weather reporting station is even more valuable to us than as an air base. The Nazis attempted to organize their own weather stations in the Arctic long before the United States entered the conflict. They realized that whoever controls Greenland weather information would have the upper hand in any trans-Atlantic air war. Some of the Nazi installations were routed only in late 1944."

Major Robert B. Sykes, Jr., district weather control officer for the entire island, told Lieutenant Sheridan that they had never had a serious personnel problem. Major Sykes arrived with the original task force in the summer of 1941 and planned much of the weather program. His men live in fabricated wooden buildings whose roofs have been trussed and strengthened with guys.

1 1 1

What the conditions are up in that far north country may be realized from the fact that some stations are isolated for 10 months each year. Pack ice sweeps down the coast and bottles up the fjords as early as October. Bergs longer than city blocks combine with old ice and new winter ice to bar even the most powerful Coast Guard ice breakers. Late in July or August, when the ice finally breaks up, new groups of men and supplies for the year are brought in.

Commodore Earl G. Rose, U. S. C. G., is the commanding officer at Greenland. The squadron commander is D. D. MacDiarmid, of Clifton, Massachusetts. The first sea arm to operate in Greenland waters was the Greenland patrol, inaugurated by Coast Guard Edward "Iceberg" Smith to convoy men and supplies to the new bases and to combat Nazi submarines. Attached to the patrol is a squadron of Navy-owned, Coast Guardmanned PBY Catalina planes.

55 Train For "Musk-Ox" Trek



Lt.-Col. P. B. Baird, of Montreal, is the 34-year-old six feet-three commander of the expedition.

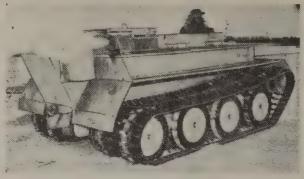
SHILO, Man., Dec. 12—Selection of men from the ranks for the 3,200-mile three-months "Muskox" military exercise across the Arctic wastes will be a difficult task for its commander, Lt.-Col. P. B. Baird of Montreal, who doesn't like the idea of disappointing any of the 55 men taking preliminary training here.

With space limited on the 12 snowwith space limited on the 12 snow-mobiles that will start out from Churchill Feb. 14 only 45 can be chosen and intense rivalry has crop-ped up among the men for shares in an adventure most of them say they "wouldn't miss for anything in the

Opening of Canada's great north country for year-round, civilian transportation is one of the most important possibilities which can result from the 3,200-mile "Muskox"

Specially-designed snowmobiles and track-trailers—a Montreal made adaptation of the Weizel which aided Canadians in Holland water battles—navigated by radar will whip through frozen wastes and plow through spring swamp to demonstrate the possibilities of this mode of transport which deesn't mode of transport which doesn't depend on highways or seasons.

Supporting the snownobile train will be radar-directed RCAF Dakotas and Norsemen Transports which



Here L.-Cpl. A. R. MacLean, of Glace Bay, drives one of the snow-mobiles that will be used for the long Arctic trip.

maintenance.

Some of the other men training as drivers, mechanics or radio opera-tors are Pte. C. A. Matheson, To-ronto; Pte. J. D. Goforth, Cpl. J. A. McBride, L.-Cpl. E. Brownrigg, all of Ottawa; Gnr. Ed. Mowatt, of Nia-gara-on-the-Lake, Ont., and Cards-

Col. Baird, 34-year-old leader of the moving force, is probably the most experienced officer in the Can-adian Army to lead that type of addan Army to lead that type of operation. The stx-foot-three geologist-surveyor-artillery expert has been a member of three other army Arctic exercises, "Polar Bear," "Lemming" and "Eskimo." He was also a member for two winters of the 1936-39 British-Canadian Arctic expedition led by T. H. Manning, now of the Department of Mines and Resources, Ottawa.

will follow a regular "day and hour" real, will be basic force commander schedule dropping supplies "on the nose."

The schedule dropping supplies "on the nose." and Major A. A. Wallace, of Pembroke, will be second-in-commend of the moving force. Air liaison of mechanic in charge of snowmobile ficer is Major T. W. Cutbill, DSO, of the schedule dropping supplies the schedule dropping supplies the schedule dropping supplies "on the sc Hamilton, Ont.

Other Ontario officers connected with the moving column or base unit include: Major H. H. Malloy, Pembroke; Capts. R. W. Crabbe, Ottawa W. H. Black, Renfrew; J. H. Elliott, Arthur; R. Inglis, St. Thomas, and Lieut. D. J. Irwin, Barrie.

Attached officers include Lieuts.
M. H. Watson, Kingston; G. A.
Cooper, Ottawa, and S.L. A. M.
Piroth, RCAF, Ottawa.

Fifteen hundred of the 3,200 miles will be under extreme winter condi-tions, Col. Baird said. First point they will pass through will be Es-kimo Point and from there they move on to Baker Lake, Perry River and Cambridge Bay, where the force will split, one section goes up to Denmark Bay on Victoria Island. furthest northern point on the route Sources, Ottawa.

When war was declared Col. Baird was in the Arctic. He came out immediately on the supply ship Nascopie and in Montreal enlisted as a gunner in the 7th Field Battery.

Lt.-Col. J. D. Cleghorn, of Mont-not later than May 5.

a rear-mounted engine, these broad treads make ground contact over nearly the entire length and two-thirds of the width of the vehicle.

In the resulting low ground pressure lies the secret of the "penguin's" success in moving over deep snow and soft, boggy ground found in vast expanses of northland swamp and muskeg.

The new contraption is a pas-

of northland swamp and muskeg.
The new contraption is a passenger and load-towing adaptation of the armored reconnaissance snowmobile which was tested in large numbers during the army's three winter scheme, last winter—"Lemming," "Polar Bear" and "Eskimo."

32.

SOME 400 of the two-place, armored predecessor were built in Canada on British orders and intended for use in the in-vasion of Norway which was cancelled by the collapse of Ger-

many.
With the weight of the armor eliminated, the same chassis and power plant mounts a roomy cabin, with space for four to six, and tows a tracked trailer carrying 6,000 pounds of supplies and equipment.

Sitting up front with all-round vision, an operator steers with two levers in the same manner as with all fully-tracked vehicles. Two leather-cushioned double seats face each other in the body of the cab and can be folded down to provide a double bed at

A large part of the cab is formed by wide "thermo-glass" windows — non-clouding double layers of glass separated by an air breathing space.

Equipment includes a long-range radio transmitter, five short-wave sets and a Radar receiving set, all operated by a battery system on an independent gasoline-operated charger, and a combined searchlight and signal lamp mounted outside and manipulated from inside the

Heat for the cab is furnished in two ways. A unique system blows exhaust forward along a sealed space under the floor and out through both sides of a hollow front bumper. A special heater, independent of the main heater, independent of the main to the special heater.

heater, independent of the main engine, can heat the cab to "room temperature" in emergencies, such as operations on injured or wounded personnel.

However, medical experts on last winter's schemes recommended that, even in extreme cold, the cabs of vehicles be maintained at a temperature only little above that of the outside atmosphere to prevent crew members from perspiring unduly.

New "Penguins" For Army

By Andy Ross Canadian Press Staff Writer

OTTAWA-A special train will chug out of the railway yards here within a few days bound for Churchill, Man., to deliver 15 spanking new "penguins"-mechanical snowshoes for the army's operation "Muskox," an 80-day, 3,000-mile trek across the bleak sub-Arctic scheduled to start next February 14.

The "penguin," so named by an anonymous draftsman who worked on the plans, is the latest of a long line of military snowmobiles developed under a cloak of secrecy from pre-war civilian models. Not the least amazing feature is the fact the vehicle was transferred from drafting board to flat-car in six weeks

Plans for the new snowmobile were handed to an Ottawa manufacturer at the end of October by the directorate of vehicles and small arms at Defence Headquarters after extensive tests of an

army-built "prototype" on D.V. S.A.'s 700-acre proving ground some nine miles east of Ottawa. * * *

NOW on the assembly lines stand 15 nearly-completed "penguins." And, much of the success — and particularly the comfort — of the army's ambitious cold-weather military and scientific tests this winter will depend on its performance under rigorous Arctic conditions.

The 10 000-pound "penguin" is

The 10,000-pound "penguin" is a mechanical musher at which any old-time northland trapper or prospector would gape in awed disbelief. And, who wouldn't, on seeing what resembles the cabin of a motor torpedo boat charging through the snow at a 30-mile-an-hour

Getting down to technicalities, the "penguin's" webbed feet are provided by yard-wide steel and rubber tracks operating on 16 pneumatic-tired bogey wheels. Sprocket-driven and powered by

The Polar Times

Published June and December by the AMERICAN POLAR SOCIETY, Care American Museum of Natural History, Central Park West at 77th Street, New York, N. Y.

AUGUST HOWARD, Editor

THE POLAR TIMES highly recommends "The Polar Record," published January and July by the Scott Polar Research Institute, Cambridge, England.

The American Polar Society was founded. Nov. 29, 1934, to band together all persons interested in polar exploration. Membership dues are one dollar a year, which entities members to receive THE POLAR TIMES twice a year.

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U. S. and Canada Join to Guard Polar Area

WASHINGTON, Dec. 17 (A).— The United States and Canada are cooperating on joint defense measures against any future attack, particularly across the Arctic regions, Allied diplomatic officials disclosed today.

As one step, the United States has assigned six observers to accompany "Exercise Musk-ox," the Canadian Army and Air Force expedition which will make a 3,100mile expedition through the Arctic early next year to gather information on possible military operations in that region. The expedition will be suppled by air.

As another step, the American-Canadian Board on Defense, headed by Mayor F. H. La Guardia, of New York, now is meeting every two months instead of every three months as it did during the

American officials also are supporting the Arctic institute at Mc-Gill University in Canada, which is studyng problems of exstence in the Arctic

General Henry H. Arnold has predicted that the next war may bring attacks across the North Pole

with atomic weapons.

The "Musk-ox" expedition is to

Arnold Calls North Pole Vital Center of Next War

By The United Press.

WASHINGTON, Dec. 6-The strategic center of the next war will be in the area of the North Pole, Gen. H. H. Arnold told a National Press Club luncheon

The chief of the Army Air Forces asserted that every country capable of waging a major war was situated north of latitude 30 degrees and that the shortest routes between them cut across the North Pole.

"In addition to being a shorter and more direct route," he said, "it is over wild, virtually uninhabited country and the weather is generally better over the North Pole than over the Atlan-

start in two segments, from Churchill, Manitoba, in mid-February, and from Edmonton, Alberta, in early May. The United States has given Canada assurance of full co-operation in the expedi-

The air forces expect to obtain land travel at night.

vital information on polar operations, and the ground forces will gather data on equipment needed in the arctic area.

American officials say the United States and Canada have co-operated closely in liquidating their joint war-time ventures, particularly the air route between the United States and Alaska and the installations connected with it.

The highway sections linking Alaska and the United States will be taken over by Canada on April 1 and the telephone and telegraph lines June 1. These were developed to support a series of aerial staging fields which the Canadians built and the United States helped delvelop and supply.

Canada has paid for every permanent air facility installed by the United States, American diplomats The United States has requested no bases on Canadian soil in view of mutual confidence that a comprehensive defense program can be worked out in any emergency.

Birds Nocturnal Migrants

Most of the birds that migrate to and from the Canadian North-

Plane Leaves For Arctic

OTTAWA, Oct. 2—(C.P.)—Bound for the Arctic Circle, a big twinengined R.C.A.F. plane took off from here today with more than 500 pounds of medical supplies to be parachuted on lonely Baffin Island, site of deadly typhoid fever epidemics which have taken the lives of 45 Eskimos.

Piloted by Sqdn-Ldr. D. S. Florence of Westmount, Que., the Dakota aircraft will land at Goose Bay airport in Labrador and Frobisher Bay airport on Baffin Island before dropping the supplies at Cape Dorset and Pangnirtung mission hospital. Neither of the isolated outposts has suitable landing areas.

ing areas.

Stocked with penicillin sulfa drugs, vaccines and intravenous solutions, the plane stood by for hours yesterday awaiting a break in bad weather which had kept it grounded.

grounded.

At Cape Dorset, on the bleak southern coast of Baffin Island, supplies will be dropped to Dr. Noel R. Rawson of Winnipeg, medical health officer of the Northwest Territories Administration, who is at the centre of the Cape Dorset outbreak.

At Pangnirtung, 300 miles east of Cape Dorset, additional supplies will be parachuted to Dr. Gordon Gaulton of Saint John, N.B., Northwest Territories administration officer at the mission hospital there, who is dealing with cases in that area.

ARCTIC STUDY IS SET FOR CANADIAN TROOPS

OTTAWA, Dec. 15-A Canadian military expedition by snowmobile, starting from Churchill on Feb. 14, will cover about 3,200 miles of Arctic country and finish in Edmonton on May 5, it was announced today.

The expedition will include forty-five men of all ranks. It will travel in twelve snowmobiles of a new pattern. Besides the forty-five Canadians a few United States experts will accompany the expedition. No invitations to military representatives of other countries have been issued. Such a long trip under the conditions, it was said, is not likely to attract them. They will be invited to see the start of. the expedition, however, to examine the vehicles in Churchill and

to be present when it returns.

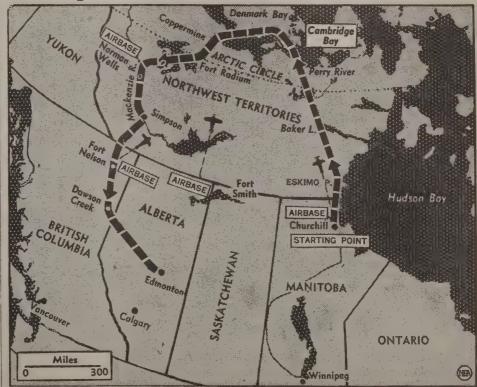
The route will be Baker Lake, where a meteorological station will be established; Cambridge Bay, over the top and down past Nor-man Wells and Nelson. During the last part of the trip the snowmobiles will be called on to travel under different weather conditions, as it is expected that the ice breakup will have begun.

These vehicles have been devel-

oped in Canada as an adaptation of the United States Army weasel. They have wide tracks and have been proved capable of making a daily average speed of thirty-five miles in bad snow and ice condi-

Insisting that there was nothing secret about the expedition, Defense Minister Douglas Abbott said that it was believed the lessons learned would be of greater civil-ian than military value. The ex-pedition is known as "Musk Ox."

'Operation Musk Ox' to Probe Arctic



With the belief of military men that rocket weapons and jet planes of the future might bombard North America over the earth's narrow "roof," former Arctic "wastelands" take on new significance. The Canadian army plans a 3,100-mile winter trek of reconnaissance across the top of Canada. The expedition, consisting of 45 army personnel and official observers, will also try out new winter clothing and modes of transportation. Map above shows the projected route of "Operation Musk Ox."

ARCTIC INSTITUTE OPENS ITS DOORS by from the Science Service.

Dr. A. L. Washburn, Director, Prophesies 'Consider. able Expansion' of New Venture

MONTREAL, Nov. 21

North America's first international institute for the advancement of arctic research has opened its doors in Montreal.

Designed as the coordinating centre on this continent for scientific research pertaining to the as yet scientifically untouched arctic and sub-arctic regions, the Arctic Institute of North America has established temporary head-quarters in the McGill University Arts Building. Permanent head-quarters will be opened later elsewhere in the city, when suitable accommodation can be found.

Director of the institute is Dr. A. L. Washburn, an experienced arctic scientist, graduate of Dartmouth College and Yale University, who last night, in an interview, prophesied "considerable expansion" of the new venture within the next two years, Dr. Washburn is now residing in Montreal.

now residing in Montreal.

Dr. Washburn pointed out that "wartime development of northern transportation routes to Asia and Europe has brought to light many problems which emphasize our lack of knowledge of arctic and sub-arctic regions in this hemisphere. A realization of the advances made in the Soviet Arctic through the activities of the Arctic Institute of Leningrad and the desirability of similarly advancing our knowledge of the North American Arctic, led to the founding of our institute."

The Arctic Institute of North

can Arcue, led to the founding of our institute."

The Arctic Institute of North America had its origin in 1944 when a representative group of Canadian and American scientists and educators met in New York and agreed upon the desirability of founding a scientific institute for the promotion of arctic studies. Planned as an international organization to serve the four countries with interests in the North American Arctic Canada, the United States, Newfoundland, and Greenland (Denmark), the institute was initially financed by grants from the National Research Councils of Canada and the United States and by donations from private sources. The four countries interested are all represented on the organization's board of governors, which has Dr. Charles Camsell, of Ottawa, Deputy Minister of

Brings Plants from the Arctic

MONTREAL .-- A Canadian missionary-botanist, Pere Artheme Dutilly, has just returned here after leading an expedition across an almost unknown corner of this continent. With two other scientists and three Indian guides, he made the traverse across the northern tip of the Labrador peninsula, from the Gulf of Richmond on its western coast to Ungava Bay on the Atlantic side. It was his twelfth successive trip to the Far North.

Pere Dutilly brought out more than 4000 sheets of pressed plants, together with many other speci-mens of scientific value. These will be taken to the Catholic University of America in Washington,

D. C., where he conducts his researches in the winter.

The journey of 400 miles took
22 days to complete, going by
cance up the Stillwater river, over the Divide, and down the Larch and Koksook rivers to Fort Chimo on Ungava Bay. He describes the rivers as "very intriguing"—in one stretch of 54 miles there were 70 rapids where the voyageurs had to choose between shooting and portaging. At Fort Chimo, after a wait of six days, he was able to find a seat on a plane which took him to Moncton, N. B., where he transferred to another plane to complete his journey to Montreal, Pere Dutilly's companions on his

pere Duthly's companions on his journey were the Abbe Ernest Lepage, director of studies at the Rimouski College of Agriculture, and Prof. Pierre Dagenais, geographer at the Jacques Cartier Normal School.

This is only the second time that this difficult traverse has been made. It was first made by Dr. E. A. Low, a geologist, in 1896.

also be maintained with non-governmental research institutions and with universities, the director added, citing as examples the Scott Polar Research Institute at Cambridge University; the Arctic Institute at Leningrad; the Commission for Scientific Research in Greenland (at Copenhagen); the Spitzbergen and Arctic Sea Research Institute at Oslo; the Geographical Society of Finland at Helsinki; and the Danish Arctic Society;

Helsinki; and Society.

First research work to be sponsored by the new institute will be at Baker Lake, District of Keewatin, where a new station is expected to be ready during the coming

States and by donations from private sources. The four countries interested are all represented on the organization's board of governors, which has Dr. Charles Camsell, of Ottawa, Deputy Minister of Mines and Resources and Commissioner of the North West Territories, as chairman.

"The institute believes," Dr. Washburn pointed out, "that since basic scientific questions are common to the entire Arctic region, great economy of effort, avoidance of duplication, and wider discussion of problems can be secured by treating the North American Arctic as a region to be studied as a unit.

"Although the institute is a private organization," he went on, "it cannot work effectively without the goodwill and cooperation of the governments concerned. Consequently, close relations would collins Jr., director, Ethnogeogramatics." Close relations would collins Jr., director, Ethnogeogramatics and the United States and by the National Mandicrafts, loaned by Dr. Trevor candian consul in Greenland, and a temporary exhibit loaned by the National Mandicrafts, loaned by Dr. Trevor Lloyd, former Canadian consul in Greenland, and a temporary exhibit loaned by the National Mandicrafts, loaned by Dr. Trevor candian consul in Greenland, and a temporary exhibit loaned by the National Mandicrafts, loaned by Dr. Trevor candian consul in Greenland, and a temporary exhibit loaned by the National Mandicrafts, loaned by Dr. Trevor candian consul in Greenland, and a temporary exhibit loaned by the National Mandicrafts, loaned by Dr. Trevor display in its arts building headiquarters an exhibit of Greenland handicrafts, loaned by Dr. Trevor candian consul in Greenland, and a temporary exhibit loaned by the National Mandicrafts, loaned by Dr. Trevor candian consul in Greenland, and a temporary exhibit loaned by the National Mandicrafts, loaned by Dr. Trevor candian consulting the National Mandicrafts, loaned by the National Mandicrafts, loaned by Dr. Trevor candian consulting the National Mandicrafts, loaned by Dr. Trevor candian consulting the Natio

Canada Preparing for Control Of Road in Which U.S. Shared

By Morris McDougall

OTTAWA, Oct. 24-The system of communications across the territories of northwestern Canada were constructed in the early stages of the war against Japan as a means of defending the continent from invasion from the north will be transferred from United States to Canadian control in the spring and early summer of

The road which links the line of

The road which links the line of airfields from Edmonton to Alaska, sometimes called the Alcan and sometimes the Alaskan Highway, will be turned over to the administration of the Canadian Army on April 1.

On June 1 the Royal Canadian Air Force will assume responsibility for the landline system of telegraph, telephone, and teletype communications which have been an integral part of the defense system of the Northwest.

The airfields along the route

The airfields along the route have been under the supervision of the Canadian Air Force, but administration of the air route will be fully assumed when the United States military authorities with-

draw.
Giving this information to the House of Commons, Louis St. Laurent, Minister of Justice and Acting Minister for External Affairs, said that with the end of the war the United States is anxious to withdraw from its responsibilities in northwest Canada.

It now rests with the Canadian Government to determine what use

Government to determine what use can be made of the vast line of defense as an element in the permanent continental defense system and what part it can play is suttoned on the continents.

system and what part it can play in future development of the resources of the territory.

The highway, which stretches for 1,576 miles from Dawson Creek, northwest of Edmonton, to Fairbanks, Alaska, is for about three quarters of the distance in Canadian territory, and according

to the agreement when the Canadian section passes to Canadian control and is incorporated in the Canadian highway system, no discriminatory conditions will be imposed at any time as between Canadian and United States civil-ian traffic. The Canadian Army for the present will maintain the

for the present will maintain the highway as a military road. The Canadian Government has repaid the United States the costs of construction of airfields along the route and of the landline system of communications.

For the present the Canadian Air Force will be in control of the system of airfields, but the question of the future civil control has not yet been decided. The policy will be determined in the light of future developments.

future developments.
Until the future is clearer, Mr. Until the future is clearer, Mr. St. Laurent explained, it would be unwise to decide on rigid and unchangeable policies. It may, however, be taken for granted that even if the aviation policy of the country is still in a formative stage. the so-called Northwest Staging Route will be included in the general plan of expansion.

'Musk-Ox' Group Leaves for North

THE PAS, Man., Nov. 24 — (CP.)—Thirty-three soldiers, vanguard of the Canadian Army's "operation musk-ox" which will test mechanized equipment under Arctic conditions, left yesterday on the Hudson Bay railway train for Churchill where they will establish their operating base.

The vanuguard will arrange ser-The vanuguard will arrange servicing equipment and power facilities for the main force, scheduled to leave Winnipeg, Dec. 29. Half of the advance party will return to Winnipeg in two weeks while the other half remains to service the 80-day, 3,000-mile trek across northern Canada.

The operation will begin about the end of February and will pass through Fort Smith, Fort Nelson and Norman Wells. The trek will end at Edmonton sometime in

Col. Ohlson Will Retire As Head of Alaska R. R.

Colonel Otto F. Ohlson, for 17 years general manager of the Government-owned and operated 500mile Alaska Railroad, will retire at his own request on December 31, and will be succeeded by Colonel John P. Johnson, of the Army Transportation Corps.

A railroader for nearly a halfcentury, Co. Ohlsen formerly was associated with the Northern Pacific, and during World War I was in charge of Army railroads in

Nostrils and Latitude

Anthropologists declare that the colder the climate the narrower the human nose.

phic Board, Smithsonian Institution Washington; Dr. R. F. Flint. Department of Geology, Yale University; Dr. L. M. Gould, president, Carleton College, Northfield, Minn R. Gushue, chairman, Fisheries Committee, Combined Food Board, Washington and St. John's, Newfoundland; Dr. E. M. Hopkins, expresident, Dartmouth College, Hanover N.H., Dr. H. L. Keenleyside, Canadian Ambassador of Mexico, Mexico City, D.F., Dr. C. J. Mackenzie, president, National Research Council of Canada, Ottawa; Dr. Robert Newton, president, University of Alberta, Edmonton; Dr. J. J. O'Neill, treasurer, dean of engineering, McGill University; G. R. Parkin, secretary, supervisor of British and foreign investments, Sun Life Assurance Co., Montreal; Dr. Morten Porsild, director, Danish Arctic Research Station, Disko Island, Greenland; Walter S. Rogers, vice-chairman, director, Institute of Current World Affairs, New York; Dr. Philip S. Smith, Chief, Alaska Division, U. S. Geological Survey, Washington; Dr. V. Stefansson, New York; Dr. A. L. Washburn, Director, Arctic Institute of North America, Mont-Washburn, Director, Arctic Institute of North America, Montreal; Col. J. T. Wilson, assistant to chairman, Director of Operational Research Department of National Defence, Ottawa.

ICE CREAM SERVED AT ARCTIC FEASTS

Eskimos Join Trappers and Missionaries in Festivities Throughout Far North

OTTAWA, Dec. 25 (Canadian Press)—It was a Merry Christmas today in Santa Claus' back yard inthe Arctic Circle, where Eskimos left snow-blocked igloos to join trappers, missionaries and other persons at lonely outposts for feasts that at one spot included ice

It was a black and white Christmas at most of the lonely Canadian outposts where there was little or no daylight. Celebrations were held under the flickering light of seal oil hurricane lamps.

However, a cold pale moon mirrored in the snowy whiteness furnished an eerie light for the chill

At Port Harrison on the bleak Quebec coast of Hudson Bay, two little girls—possibly the most northerly Canadian white chil-dren—got a big kick out of being first on Santa's list as he started south on his round-the-world visit.

Canada's most northerly radio station is Arctic Bay, far up on the icy rim of Baffinland, where five men and a woman enjoyed a fare that included soup made from ptarmigan, a fish entree of Artic char, polar bear steak, plum pudding and mince pie.

The transport department surveyed its northern outposts to see how they were celebrating Christmas and these are the highlights of some of the reports from spots scattered from Resolution Island on Hudson Strait in the east to Copper Mine in the Northwest Passage in the west:
The Resolution Island post treat-

ed Eskimo neighbors to ice cream,

cake, candy and nuts.

Port Harrison saw Marion Stewart, daughter of Royal Canadian Mounted Police Corporal Stewart and Faith Shepard, daughter of the Anglican missionary, become the first Canadian white children to receive a visit from Santa. The radio station staff at this Hudson Bay post had a goose dinner and later served beans, tea, doughnuts and hard tack to Eskimos.

The Nottingham Island post at the entrance to Hudson Bay had roast chicken and boiled ham and the Eskimo visitors sang native

songs.
At Chesterfield Inlet on the west coast of Hudson Bay everyone went to midnight mass following which the natives joined with the whites in singing carols to the accompaniment of a portable organ.
At Arctic Bay, the post residents

didn't catch a glimpse of daylight, which added to the fun of a scramble for candy, nuts and other delicacies in which big husky dogs joined.

The report gave this description: "When the trading post started for eats for the natives—grand-parents, parents, children and hus-kies all piled on top of each other 000 barrels.

HAS SEALING SLUMP

Newfoundland Is Waiting for Cheaper Vessels

The sealing industry of Newfoundland is fading into the rugged past. One explanation, according to The Canadian Press, is the high cost of ships, which, with the exception of the steel vessels first used in 1905, can be employed only two months a year.

The last fleet sailed for the ice fields in 1941. The Nascopie, sole survivor of the steel sealing ships, is in the trading service of the Hudson's Bay Company in the Far North, Only one vessel remains for the hunting, the Eagle, last of the wooden sealers, and it is not certain that she will make another voyage.
In 1831 Newfoundland ex-

ported 686,836 seal skins, the record figure; in 1936 the catch was only 150,000 seals. In 1906 the industry employed twentyfive vessels and 4,061 men. By 1936 the fleet had shrunk to eight ships with 1,460 men.

Although it is believed that some concerns formerly engaged in the industry are planning to replace some of the ships, any plans will have to wait the return of more normal conditions in the shipyards.

in the fun and despite the darkness, not even a stick of chewing gum could be found when it was over.'

At Copper Mine in the western Arctic, the big event was the arrival of the first Christmas flight since 1939. The plane brought packages and greeting cards from the outside world. A part of the day's routine at the radio station included the broadcast of Christmas greetings to traders in even more lonely and isolated spots.

CANOL AREA UNDER TEST

Survey Will Decide Value as Commercial Oil Source

TORONTO, Nov. 21 (AP)-Test work to determine whether enough oil can be found to turn the wartime Canol project into a profitable commercial enterprise is being carried out in a vast area adjacent to the Norman Wells field, an Imperial Oil Company spokesman said

today.

The spokesman said that an area of 2,000,000 acres is being explored by the company under permit from the Canadian Government. Four-teen test holes have been drilled without success, he added.

The work was started after the end of war saw the United States Government abandon the project, the spokesman said. If not taken over by the Canadian Government, it is to be offered to an open market.

Reserves in some sixty wells operated during the war in the Norman Wells field, about 1,600 miles north of Edmonton, Alberta, are not enough to classify the en-

ARCTIC HELP URGED Hard Life BY 'FLYING BISHOP' Of Mountie

Guest Preacher Here Tells of Changes in His Diocese Brought by War

With the Arctic countries coming more directly under the influence of western civilization, the church must guide the northerners into the paths of Jesus Christ for "life, life eternal, life more abundant," the Right Rev. Archibald L. Fleming, Canadian Bishop of the Arctic, declared Nov. 18 in a sermon in Grace Episcopal Church, Broadway and Tenth Street.

Known as the "Flying Bishop" because he frequently has to reach his scattered narishioners by air.

his scattered parishioners by air, Bishop Fleming reported that "in the Arctic today we have some

strange happenings."
"During the war," he said, "vast sums were spent, great skills used, hard labor expended in building airfields. With the coming of civilization changes are taking place for the people not only physically but mentally and spiritually as well.

"Civilization has come like a great and mighty stream carrying northward things undreamed of heretofore. We must, with God's grace, guide the feet of these peo-ple. Whether Eskimo, Indian or, white man, they want life and want it more abundantly."

The Bishop's diocese extends from Newfoundland on the east to Alaska on the west and is bounded on the south by the Dominion of Canada and on the north by the North Pole. It has an area of 2,250,000 square miles and contains Eskimos, Indians and a few white persons, mostly trappers, fur traders, prospectors, miners and reindeer hunters.

Bishop Fleming pointed out the differences between the older and, younger generations in the area around his cathedral at Aklavik. The more aged still carry the tatoo marks of their pagan period and maintain some reserve against the whites and their customs. The youngsters, the Bishop said, realize that the future belongs to western civilization and many refuse to follow ancient customs and to speak the native language.

Bishop Fleming, who was born and educated in Scotland, has passed nearly forty years in mis-sionary service in the Canadian He was consecrated the first Bishop of the Arctic in 1933. His diocese extends from Newfoundland to Alaska, across the top of the North American continent and to the North Pole. He is often called "the Flying Bishop" because of his many airplane trips over his 2,225,000-square-mile dio-

Last summer Bishop Fleming made an episcopal visit, with Mrs. Fleming, to the seat of his cathedral, at Aklavik. This village, those name means "place of the brown bear" in the Eskimo language, lies 120 miles north of the Arctic Circle, near the mouth of the Mackenzie River, not far from ronto to Aklavik, he said.

Revealed

OTTAWA, Nov. 3 -OTTAWA, Nov. 3 — (C.P.) — Starving dogs tried to eat their leather harness during a 3-500-mile perilous Arctic Circle trek by a Mountie investigating an Eskimo' murder, it was dis-closed in the annual Royal Can-

adian Mounted Police report.
The hard-won living of the north was reflected in the report of Constable C. L. DeLisle's long overland dogsled trip to Mary Jones Bay on the Boothia Peninsula, seat of the magnetic north

After many adventures he reached his objective and found the natives "very primitive and very friendly." This description also fitted the criminal.

SAID the report:

"Mitkauyout, "Mitkauyout, the alleged murderess, a young woman of about 21, readily and voluntarily admitted her guilt and statements were taken through an interpreter in the cold igloo by the light of a seal oil lamp."

The body of her brother-in-law was found cached in ice and still preserved from the previous

preserved from the previous

preserved from the previous year's shooting.

It was in the rounding up of the evidence for the trial which has not yet been held that the constable had many close brushes with death from freezing and losing his way in the grim fast-

At one place he found an Eskimo youth had frozen to death when he was driven from his igloo by a hungry bear in search of a seal the native had cached.

cached.
Food ran low and the cold and drifting blizzard increased. But bear tracks were found and the prospect of food kept the man and his dogs on the march. Sometimes he walked before them to give encouragement. Sometimes he dragged behind. Finally they came within sight of a big polar bear.

THE dogs were released and soon had the beast at bay. The mountie brought the bear down with a single shot. The

The mountle brought the bear down with a single shot. The carcass was skinned and the meat cut up as much as possiole, before the dogs, dodging whip and harpoon handle, came charging in and ripped the meat to bits. Man and dog had a good feed

Typical of the tough going was is excerpt from DeLisle's

diary

diary:

"After struggling through the ice and snow all day in poor visibility darkness caught us unawares. Nowhere was there good snow for an igloo. The blocks had to be cut from here and there and carried over the rough ice to a central point. Meanwhile the poorly fed dogs were eating their seal skin harness at every opportunity and ness at every opportunity and every now and then made a conterted rush for the meat on the sled.'

DeLisle gained 20 pounds on his long patrol, talked to 750 Eskimos and recorded 104 births. deaths and marriages. He also investigated six accidental deaths.

the Alaskan border. His airplane journey from Edmonton, Alberta, to Aklavik, a distance of 1,964 miles took thirteen hours and twenty minutes. Formerly it took three months to travel from To-

Capt. Bartlett Takes Up His New Task Has Polar Bear

Will Give It to Broux Zoo; He and the Morrissey **Supply Weather Stations**

By Allen Raymond

By Wireless to the Herald Tribune Copyright, 1945, New York Tribune Inc.

NARSARSSUAK, Greenland, Sept. 26 (Delayed).—Captain Bob Bartlett, companion of Admiral Robert E. Peary in the expedition of 1909 which discovered the North Pole, is in port here today aboard his schooner, the Effie M. Morrissey, on his way to New York with a six-month-old polar bear for the New York Zoological Park in the Bronx.

The venerable captain has just returned from a voyage to Thule, 600 miles north of the Arctic Circle, with a lieutenant and a sergeant of the United States Army Air Forces Weather Service. They left supplies for the winter at a string of Danish weather stations which work under Army direction for the benefit of planes flying the North Atlantic between Newfoundland, Iceland and Scotland.

With him aboard the schooner were his brother Will, who is first mate, and twelve other Newfoundlanders, besides the bear cub. The cub's name is Bluie, which is part of the code name used for the Army's Greenland stations when they could not be mentioned for security reasons.

Bear Kept on Deck

The bear is kept in a crate on deck. His growls are pretty fero-cious. He smells about as bad as any animal I have ever smelled. I looked through a little hole in the crate and he bared sharp teeth at me, growling. The crew fed him

Captain Bartlett's trip took him to Cape York, where in 1932 he and his brother Will and two Newfoundland stone masons built the sixty-foot stone monument to Admiral Peary on a 1,500-foot bluff. "The monument is still there," he said, "good as new."

He also found three Eskimos of

the Peary expedition still alive and healthy, Ootah, Inighitoo and Poohdloonah. Captain Bart-lett was delighted and amazed at this, "Most of the good Eskimos die young—they get killed or drowned," he said.

The Morrissey left Narsarssuak on July 5 and returned to the pier of the Greenland Base Command last Saturday after traveling about 2,000 nautical miles through the pack ice of Davis Straits. Captain Bartlett returned in high spirits, admitting to seventy years of life that have failed to dampen his zest for the Arctic.

"Best time I ever had," he said. "I never really had time to look at Greenland before, as I was always traveling north to get somewhere else.'

Down in the cabin of the Morrissey, packed with books on polar explorations as well as ship's gear, As Captain of the Port



Rear Admiral Edward H. Smith (U. S. Coast Guard)

Aug. 24

Rear Admiral Edward H. Smith, known throughout the Coast Guard as "Iceberg" Smith, assumed this week his new duties as District Coast Guard Officer and Captain of the Port of New York. Admiral Smith, outstanding authority on Arctic waters, comes directly from his post as commander of a North Atlantic and Arctic Task Force.

A graduate of Massachusetts Institute of Technology, he holds a Ph. D. from Harvard University where he received a fellowship for his studies in oceanography. A descendant of a long line of mariners, he was born in Vineyard Haven, Mass., in 1889, entered the Coast Guard in 1910 and was commissioned three years later.

Author of several definitive works on Arctic waters, Admiral Smith was placed in charge of the stra-tegic Greenland Patrol at the outset of World War II, and during 1942 and 1943 planned, built, supervised and administered the vital naval bases in Arctic waters.

Indian Migration Theory Supported

LONDON, Dec. 10 — (Reuters)

— Soviet scientists in Chukotka peninsula, on the Siberian coast of Bering Strait,

Siberian coast of Bering Strait, have made discoveries confirming the theory that the North American Indians originally came from Asia, the Soviet news agency Tass said last night.

A report from Professor Georgi Dibets, expedition leader, to the Soviet Academy of Sciences said the expedition carried out the first anthropological study of settled and nomadic inhabitants of the peninsula and of the Diomides Islands, in the Bering Strait.

The report said the expedition

The report said the expedition possessed material bearing out the theory of a number of Canadian. American and Russian scientists that the North American Indians originally went from Asia to North America across the Bering Strait.

RUSSIA TO SHARE WEATHER DATA

The Soviet Union is building a weather observation center on Wiese Island in the Arctic Ocean and information gathered there of value in navigating far northern waters will be made available to American ships, according to a dispatch

from Archangel.

Wiese Island is at the ap proximate center of a triangle formed by the island clusters of Franz Josef Land on the northwest, Novaya Zemlya (New Land) on the southwest, and to the east Severnaya Zemlya (North Land), which was formerly Nicholas II Land. Each of these island groups is roughly 200 miles from Wiese, which is about nineteen miles long and six miles wide, says the National Geographic Society.

The island was discovered in 1930 by a Soviet meteorological expedition and was named aft-er Prof. W. J. Wiese, a member

of the party.

By 1932 the Russians had set up meteorological and ra-dio stations on Hooker and Rudolph Islands in Franz Josef Land and on Cape Chelyuskin.

he insisted on serving tea and toast to visitors, and discoursed lengthily about the days when he and Admiral Peary met the kings, admirals, duchesses and other potentates of Europe after Peary's claim to discovering the Pole had been conceded.

2 Army Men on Trip

Captain Bartlett's Army companions on the voyage were First Lieutenant Donald Werner, of Cedarville, Mich., and Staff Ser-geant Charles McCalla, of Maysville, Ga. Lieutenant Werner said this was his third annual trip to the Arctic weather stations. Each trip was made in summer, with sunlight twenty-four hours a day and fine hunting weather

On this trip he sighted fourteen polar bears on a great ice mass

floating toward Greenland from the Canadian shore. In Melville Bay, after many days and miles of tracking them, he managed to shoot a big one with his M-1 rifle, and will have the skin sent home for a rug. He and a member of Captain Bartlett's crew roped the little one securely and dragged it aboard the vessel.

They also shot five walruses. They gave the meat to the Eskimos and kept the tusks for souvenirs. Lieutenant Werner said one big walrus was trying to climb up on an ice pack with him when he put twelve slugs from an Army 45-caliber pistol into the inch-and-a-quarter bone of its skull. These failed to stop the walrus, but a bullet from an M-1 rifle finished him off.

Russian North **Yields Gold**

4-Year Expedition Reports Findings

MOSCOW, Nov. 19 — (A.P.) — Soviet geographers back from four years' exploration of the coldest place on earth-the Yakutsk region in Sibcria-yesterday reported vast gold fields, precious stones and valuable mines were

stones and valuable mines were under the frozen soil 1,000 miles north of Manchuria.

The explorers told strange tales of the little-known land where the temperature dropped to 94 degrees below zero in winter—lowest ever recorded near the earth's surface by Soviet observers—only to rise to 95 degrees above zero in the same region during the summer. But even the summer heat thaws the earth only on the surface.

Geographer Dimitri M. Kolosov told the Moscow News that gold fields along the Lena River, previously acknowledged as among themost important in the world, are capable of great expansion. Mining of precious stones and various ores also could be developed, it was reported.

In four years the explorers covered an area somewhat larger than the size of the Maritime prov-inces in northeastern Yakutsk on foot, by reindeer sleighs and air.

foot, by reindeer sleighs and air.

"In the deepest canyons winds of colossal force can stop an automobile dead in its tracks as it drives along the mirrorlike surface of frozen rivers," Kolosov said.

He said that before the ice age, Yakutsk had a sub-tropical climate, adding "We found many remains of the bigger mammals—the mammoth, woolly rhinoceros, musk ox, bison and others."

'Wanna' Buy a Dog? Army Will Sell You Real Arctic Huskie

PRESQUE ISLE ARMY AIR FIELD, Maine, Dec. 24 (P)—Want a sled dog?

The North Atlantic wing of Air-Transport Command has announced that it is placing more than 100 surplus veteran sled dogs on sale to the public. The dogs include, Malmute, Siberian and other popular brands of huskies.

Maj. Edward Goodale said the wing will retain four complete mobile search and rescue sled units located at strategic bases throughout the North Atlantic route.

route.

He explained that these mobile sled units can be rushed by aircraft to the scene of a plane crash or other emergencies without delay. In the event a landing is impossible, he added, entire units can be parachuted to establish a base for rescue operations.

Major Goodale said the average age of the animals is four years and that most of the dogs have at least two and one-half years Arctic rescue experience. Interested persons may submit by mail a price offer to the quarter-master.

Insects Live When Frozen

Many Arctic insects continue active living at temperatures well below freezing.

11 MEN RESCUED FROM GREENLAND

Soldiers at Lonely Station Cut Off From Supplies by January Snowslide

NARSARSSAUK, Greenland, Sept. 21 (A)-Through the thick pack ice of Greenland's east coast, two vessels have rammed their way to a lonely radio-weather station at Skjoldungen to rescue eleven United States soldiers whose supplies were buried by a disastrous snowslide last Jan. 8.

Col. Eugene H. Rice, commanding officer of the Greenland Base Command, Eastern Defense Command, said in announcing the rescue today that all eleven men were well and in good spirits despite a year-long stay in the grim country where snows of another winter al-ready have fallen.

The January avalanche roared down a mountainside directly behind the little cluster of wooden buildings that comprise the outpost. Several of the men narrow-

ly escaped death.

The snowslide buried supplies and wrecked the powerhouse and damaged two Diesel generators, on which the little band of soldiers relied for all contact with the outside world. Radio crewmen succeeded in repairing one generator, however, and were able to continue

limited operation.
Since January, the men have been supplied with food dropped

from airplanes.

Colonel Rice said that a small group of Danish operators would take over the Skjoldungen outpost this month. The station was in-stalled in 1942 to provide weather information to the Air Transport Command's North Atlantic route. over which thousands of transport and combat planes have flown during the past three years.

SPITSBERGEN MINES READY

First Shipment of Coal Seen Delivered by Fall

STOCKHOLM, Sweden, Aug. 6 (Delayed)-Work will be resumed to a full extent in the Norwegian coal mines at King's Bay, Spitsbergen, this year, Arne Broegger, managing director of the Great Norwegian Spitsbergen Company, said tonight.

Mr. Brogger said that every-thing had been settled now despite great difficulties and two ships were already on their way north with machines, building material, foodstuffs and personnel. Equip-

ment has been purchased in Sweden and Norway. The German destruction at Spitsbergen was so thorough that nothing remains of the old plants there and everything from houses to cuttery had to be produced be-fore the mines could get started again. But now the first shipload of coal is expected in northern Norway this autumn.

U. S. Charts Air Defense in Arctic

WASHINGTON, Dec. 26 .- The Army Air Forces are working on plans to protect this continent from aerial attack via the short cut route across the Arctic.

Long-range bombers, rockets and other developments in aviation are transforming the Arctic into a new front line of American

Plans were in the formative stage today for a program under which B-29 Superfortresses will frequent the top of the world, weather, land, mineral resources, weather reports and map land. ice formations, seas and sea cur-

Weather Data Vital.

War has shown that oceans may be flown in safety if adequate weather information is available. Ultimately there will be four squadrons equipped with B-29s assigned to weather reconnaissance.

Part of the new 46th Photo Weather Reconnaissance Squadron will probably be based at Fairbanks, Alaska, and assigned

flying to the North Pole to study | to fly the polar route to obtain sea and ice masses.

Seek Others' Help.

Co-operation of Canada, Russia and the Scandinavian countries will be sought in charting polar weather.

It is expected the trip to the North Pole will become merely a milk run in a matter of a few months. Operations will start as soon as equipment can be assembled and crews trained.

U. S. TO YIELD BASES ON GREENLAND

COPENHAGEN (A)-American authorities have offered Denmark four of the American meteorological stations Greenland, Danish Government circles have announced.

On April 9, 1941, a year to the day from the time the Germans marched into Denmark, the first contingent of Americans invaded Greenland. the next few years, while the North Atlantic Division of the Army Corps of Engineers struggled to build air bases, hospitals, camps and weather stations, Greenland became an active front.

The Germans needed weather reports from Greenland as much as the Allies did and it was not till 1944 that this battle was won. In December of that year the Navy revealed that four Coast Guard cutters had smashed three German Arctic expeditions.

The Germans abandoned two armed vessels, which were sunk, but the third was captured and brought to the United States. Sixty prisoners were taken in the raids.

COLLIERY IN FAR NORTH

New Russian Field Is Well Beyond Arctic Circle

New coal fields at Vorkuta, the farthest north in the Soviet Union: is estimated to contain 120,000,000,000 tons of fuel. Vorkuta, well beyond the Arctic Circle, almost as far north as the sixty-eighth parallel, is situated in the basin of the Pechora River.

On the east of the broad river basin, there are almost inaccessible North Ural Moun-tains, says the Russian Information Bureau. To the north, there is the Arctic Ocean. Everywhere is endless swampy

In summer people cross this tundra swamp by jumping from hummock to hummock, while clouds of mosquitoes and midges accompany the traveler throughout the day. In winter, fierce blizzards alternate with even fiercer frosts, which often reach 55 or 60 degrees below zero Centigrade.

Vorkuta has been connected with the Soviet railroad system by 1,800 kilometers of lines built during the war.

year's output is expected to be about that despite the difficult conditions.

Hardworking and frugal, the people of Spitsbergen wrest a meager living from their austere and magnifecently-scenic homeland. Mining and some fishing provide the chief occupations. International rivalry for Spitsbergen—simulated in early days by the violated to the chief of the

bergen—simulated in early days by the valuable whaling fields near by, and later by the discoveries of the coal wealth—has often been acute. Norway's claim to the isl-ands was finally recognized by treaty in 1920. The Scandinavian country took over officially five years later. From time to time Spitsbergen has served as a base for scientific and exploration parfor scientific and exploration par-ties working in the Arctic.

Arctic Island Found By Soviet Searchers

MOSCOW, Nov. 23 (Reuters) — The Soviet Scientific Research Ship Iceberg, which left Archangel of coal is expected in northern Norway this autumn.

The pre-war capacity of the Spitsbergen mines was roughly 100,000 tons annually and next

The pre-war capacity of the Spitsbergen mines was roughly the Laptec Sea, off Northwest Siberia, Moscow Radio said.

Russians Hail Opening Of Airline to U.S.

MOSCOW, Sept. 14 — (Reuters) —Establishment of a new Soviet-operated international air line be-tween Russia and the United States was hailed yesterday as the most notable Russian achievement in civil aviation. The service, begun in 1941 when

German armies were sweeping into Russia, passes through Northern Siberla, Kamchatka and Alaska and across nearly 4,000 of little explored territory presumably crossing Canada en route to the United States.

'Eskimo' Hog Created in Siberia NOVISIBIRSK, Siberia-A new breed of hogs as adapted to life in the Arctic as the Eskimos has been evolved by the Siberian Livestock Research Institute. For eleven years the institute crossed hogs from northern districts of Siberia with British Large White Breeders until the new type became fixed. It is expected to stim; ulate hog-raising in this rigorous

GREENLANDERS WEIGH RELATIONS WITH DANES

COPENHAGEN, Denmark, Dec. 21 (Delayed)—A Greenland delegation of six arrived today to negotiate with Denmark on future relations. Members of the Government, headed by Premier Knud Kristensen, met them.

The spokesman for the delega-tion said that Greenlanders did not

want independence, but would like an extension of self-government and more centralized relations with Denmark. They also do not want to have Greenland opened for regular free traffic as the war clearly proved the dangers to the native population if free intercourse with strangers is opened up.

Local Government councils have not decided upon their attitude to-ward military bases. They said that many United States bases had been given up, but that the big airfield at Julianhaab would surely be maintained as it is very useful for Atlantic route traffic. They wish the Danish State to take over several buildings in this neighborhood as they will be useful for Greenlanders and if Denmark does not take them the Americans would simply burn them up. It was further stated that tuber-

culosis and venereal diseases in Greenland now reach more than ten times the percentage figures in Denmark and they want a cam-paign against these diseases start-ed. Also criminality has been growing in the last years and the Greenlanders now want special measures taken in this field.

Shortly after Christmas official negotiations between the Government and the Greenlanders will

Soviet Flyer Ends Flight Into Arctic

Moscow, Nov. 14 (A. P.) .-M. A. Titlov, Soviet polar pilot, has returned to Moscow after a 12,000-mile plane flight into the arctic which carried him within a few hundred miles of the north pole.

Titlov, flying a two-engined plane, brought back data on ice drifts expected to prove of value on northern shipping routes.

Elbow Room in Greenland

Greenland is the world's most sparsely inhabited place, with .04 person a square mile.

American Names on Soviet Maps

By CORLISS LAMONT

Numerous place names in the Soviet Arctic given by American explorers are found in a study of Soviet maps.

SOVIET RUSSIA TODAY

SEPTEMBER 1944

SOVIET RUSSIA is a land of constant paradox, of startling surprise, of dramatic interweaving of old and new. Even the cold facts of geography and the stark outlines of remote polar regions demonstrate this. For, in the frigid far north of the USSR, Soviet topography reveals strange and astonishing things, as can be proved indubitably from the official Soviet map reproduced herewith from the Large Soviet Encyclopedia.

This map shows that the Soviet Union, only socialist country on earth, contains more than a dozen places named after prominent Americans, including such pillars of our capitalist economy as J. Pierpont Morgan the elder, founder of the banking house of J. P. Morgan & Co., and Charles G. Dawes, Chicago banker and vice-president of the United States in the conservative Republican administration of Calvin Coolidge. All these places are in the eastern or central parts of polar Franz Josef Land, a vast, almost completely ice-covered archipelago of some 800 islands situated far above the Arctic Circle and about 600 miles northeast of Murmansk. This is the Russian Arctic port that is so vital in the receiving of Lend-Lease supplies from Britain and America.

An Austrian explorer, Julius Payer, discovered this group of islands in 1873 and named it after the long-lived Emperor Francis Joseph of Austria-Hungary. Payer also named the northernmost island in the archipelago Crown Prince Rudolf Land (simply Rudolf Island on Soviet maps), after the Emperor's ill-fated only son; while honored Count Wilczek, who financed his expedition, by naming a large island in the northeast Wilczek Land. In general the Soviet Government has retained the names assigned by Payer and other non-Russian explorers.

American polar explorers first came to Franz Josef Land in 1898 and 1899 when an expedition headed by Walter Wellman charted much of the eastern section. Wellman, who subsequently tried to reach the North Pole by airship and died in 1934, published a book in 1911 entitled *The Aerial Age*. There

he tells of his hair-raising adventures and narrow escapes in Franz Josef Land and of his abortive attempts to fly to the North Pole from Spitsbergen. He also lists a number of prominent Americans who assisted in financing his expedition to Franz Josef Land.

These included J. Pierpont Morgan, then at the height of his career; William K. Vanderbilt, railway magnate and grandson of Cornelius ("Commodore") Vanderbilt; Helen M. Gould, daughter of the railroad capitalist, Jay Gould, and later Mrs. Finley J. Shepard; Levi Z. Leiter, Chicago dry goods merchant and in the early days a partner of Marshall Field; William McKinley, President of the United States; Cornelius N. Bliss, Secretary of the Interior under McKinley; William C. Whitney, Secretary of the Navy during President Cleveland's first administration; and "other friends."

In the same book Wellman, writing of the expedition's activities in 1899. states: "Up to this time the eastward extent of the Franz Josef Land archipelago was unknown and was a moot question among geographers. Our party delimited the archipelago to the northeast, discovering many new islands. One of them, of considerable area, beyond Wilczek Land, I named after Alexander Graham Bell, then President of the Geographic Society. Other islands, capes and straits I named in honor of friends who had helped me finance the expedition." Bell was of course the inventor of the telephone and the big island named after him is called plain Graham Bell.

Morgan Strait lies directly south of Graham Bell Island between it and Wilczek Land. There can be no doubt that Wellman named this body of water after the American financier, and the map of Franz Josef Land in the 1929 Edition of the Encyclopedia Britannica gives the fuller title of Pierpont Morgan Strait. This map also includes Vanderbilt Sound and Whitney Island in the same vicinity, but neither of these places is on the Soviet map. Our Soviet map, however, does show, off the southeast end of Wilczek Land, Dawes Island, named after ex-vice-

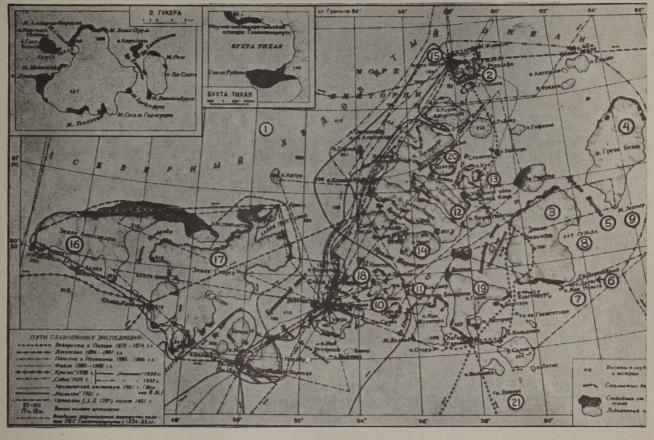
president Dawes, who has confirmed the fact that he made a financial contribution to the Wellman expedition.

Just south of Dawes Island is Mc-Nulta Island, probably named after John McNulta, an Illinois lawyer and member of the House of Representatives toward the end of the last century. Somewhat north of Dawes is Gould Bay, obviously named after Helen M. Gould. At the southeast tip of Graham Bell Island we find Cape Leiter, named after Levi Z. Leiter; and at the central eastern extremity of Graham Bell Cape Olney, in all likelihood named after Richard Olney, Secretary of State during Cleveland's second term. Cape Olney is not shown on the map, but is definitely marked on the official one in the Large Soviet Atlas of the World.

Turning again to our main reference map, we discover in the south central section of the Franz Josef archipelago Bliss Island, evidently named after Cornelius N. Bliss; and near it to the east Alger Island, not named after the popular American author of juveniles, but after Senator Russell A. Alger of Michigan, Secretary of War in Mc-Kinley's first administration.

In 1901-02 another expedition from the United States went to Franz Josef Land under the command of Evelyn Briggs Baldwin; while in 1903-05 the famous Ziegler Polar Expedition spent three years in this region under Anthony Fiala, now living in New York City. Fiala named a large body of land in the central portion Ziegler Island; an island to the north of this he called Greely, after an American Arctic explorer of that name, and one to the south Champ, after Ziegler's secretary, who was very active in helping to plan the expedition. In November of 1903 Fiala's yacht America was crushed in the ice on the western side of Rudolf Island. But his party had been able to land most of its supplies and equipment, and built a sturdy camp and an astronomical observatory at Teplitz Bay.

The other day I called on Mr. Fiala at his office down on Warren Street, near City Hall, and obtained much valuable information from him. He is



FRANZ JOSEF LAND

. (From the Large Soviet Encyclopedia)

The numbers on the man indicate the following place names referred to in Mr. Lamont's article.

	the, numbers on the	map indicate the following	blace names telefied to t	it ivii. Lamoin s arricle.
1.	North Arctic Ocean	6. Dawes Is.	11. Alger Is.	16. Alexandra Lan
2.	Rudolf Is.	7. McNulta Is.	12. Ziegler Is.	17. George Land
3.	Wilczek Land	8. Gould Bay	13. Greely Is.	18. Nansen Is. 19. Hall Is.
4.	Graham Bell Is.	9. Cape Leiter	14. Champ Is.	20. Paver Is.
5.	Morgan Strait	10. Bliss Is.	15. Teplitz Bay	21. Lamont Is.

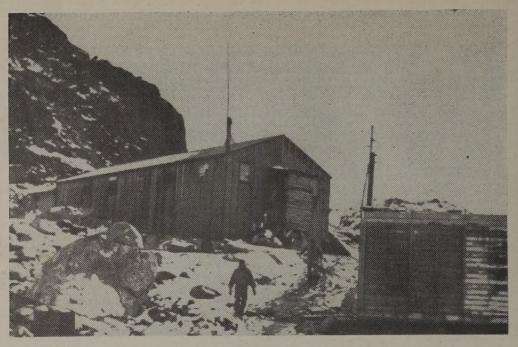
an alert, vigorous man of seventy-four, spare and athletic in build. His office, adorned with all sorts of Arctic pictures, maps and mementos, is a veritable museum in miniature. Fiala told me that in 1934 the Soviet Arctic Institute in Leningrad wrote him that Soviet explorers had recently found his library of about 75 books that he had taken ashore to his wooden hut on Rudolf Island and left behind some forty years ago. The Institute offered to send the books back to the United States if Fiala would pay the transportation charges. Fiala did not think this worth the trouble and instead presented his books to the library of the Arctic Institute where they presumably

Noted explorers from England and Norway have also visited Franz Josef Land, which explains why in the western section of the archipelago there are such islands as Alexandra Land, Prince George Land (simply George Land on Soviet maps) and Nansen Island. Nansen Island is named after the well-known Norwegian explorer, Fridtjof Nansen, who spent nine severe and exciting months in Franz Josef Land from August, 1895, to May, 1896. In 1930 the Soviet Academy of Sciences recommended that the name of the entire archipelago be changed to Fridtjof Nansen Land.

Fridtjof Nansen, it will be recalled, earned the Soviet Union's undying gratitude by his magnificent work in the feeding of millions of Russians during the great famine of 1921-22. Some American maps have been using the new name of Nansen Land, but the Soviet Government does not seem as yet to have officially adopted it.

Returning, finally, to the discoverer of Franz Josef Land, Julius Payer, we learn from his book New Lands Within the Arctic Circle that he, too, named

certain places after Americans. These were Hall Island, a large island south of Wilczek Land, and Hayes Island, a small body of land northwest of Hall. Charles Francis Hall and Dr. I. I. Haves were both American Arctic explorers who had won Paver's admiration for their records in reaching northern latitudes in the neighborhood of Greenland. At the extreme southeast of the archipelago Payer also named a tiny island, a mere dot on the Soviet map, Lamont Island, important for Payer and his party because it was the last bit of land on which they were able to camp during their retreat south after abandoning their ship in the ice. This island was quite possibly named after the Scottish-German astronomer, Johan von Lamont. This scientist lived in the nineteenth century and was no relation to the writer of this article, though his ancestry like my own went back to the Clan Lamont of Scotland.



ISOLATION—Snow still covers mountainside quarters of Army outpost men at Skjoldungen, Greenland, made uninhabitable when slides buried warehouses containing two years' food supply. Men were forced to move to small radio station at top of mountain. T/Sgt. Gale A. Powers and Sgt. Alfonse M. Minella take trail to destroyed buildings. Men were rescued after 14 months.



MODERN IGLOO—This happy family in Skjoldungen, Greenland, doesn't need ice for home. They built comfortable quarters from parts of crashed airplane. Parachute covered house has plexiglass windows, and chairs and sled runners of aluminum. B-24 bag contains wearing apparel.